



**THE FOUNDATION  
FOR SECURE  
MARKETS®**

**ENCORE – Data Distribution  
Services (DDS) Guide  
Developer Reference I  
Non-Proprietary Transmissions**

**Version 4.2  
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Reasonable measures are taken by OCC to ensure the accuracy of the information it distributes in its DDS program. This information is produced from data received from a number of different sources, which are believed to be reliable. However, due to the number of sources for such data, the possibility of human error, and the risks inherent in electronic distribution, there may be omissions or inaccuracies in such information and delays or interruptions in providing it. Accordingly, OCC disclaims all express or implied warranties with respect to the information distributed in its DDS program, including any warranty of merchantability or fitness for a particular purpose. Further, information sent on a real time basis should not be considered final until OCC issues an end of day message advising no additional transmissions will be made on a particular business day.

To read DDS FIXML messages, OCC recommends using an XML parser that adheres to the W3C<sup>1</sup> 1.0 and 1.1 XML recommendations and not the byte-by-byte method typically used for “flat file” parsing. In order to support new future business needs, OCC reserves the right to add at any time previously unused tags, which are already part of the FIXML schema, to the DDS FIXML messages. If the parsing mechanism recommended above is used, the addition of new tags will have no impact on the programs that read in the DDS FIXML messages.

For the following cases:

- Addition of new tags which are not part of the FIXML schema.
- Addition of new enumerations which are not part of the FIXML schema.
- Addition of previously unused enumerations which are part of the FIXML schema.
- Decommission/removal of existing required tags.

OCC will notify designated contacts in advance of their implementation. When needed, updated schemas will be made available, in advance, on the OCC website.

If you have questions or comments, please contact your Member Services representative or the OCC Help Desk at one of the following:

800-621-6072 or 800-544-6091 (U.S.)

800-424-7320 (Canada)

memberservices@theocc.com

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<sup>1</sup> The World Wide Web Consortium (W3C) is an international consortium where member organizations, a full-time staff, and the public work together to develop web standards.

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## Document Organization

This document is one of a set of three intended to provide a detailed description of all aspects of the Data Distribution Services (DDS) system. The guides are available on at <https://www.theocc.com/clearance-and-settlement/data-distribution-service-reference>.

**Part One: *ENCORE DDS Guide – Overview***. This section is intended for a reader that needs to understand the DDS system design concepts and the data delivery services.

**Part Two: *ENCORE DDS Guide – Developer Reference I – Non-Proprietary Transmissions***. This section is a non-proprietary transmission mapping reference for FIXML developers. This part of the guide includes FIXML elements, transmission layouts, message structures, and sample messages.

**Part Three: *ENCORE DDS Guide – Developer Reference II– Proprietary Transmissions***. This section is a proprietary transmission mapping reference for FIXML developers. This part of the guide includes FIXML elements, transmission layouts, message structures, and sample messages.

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## Glossary of Terms

You should be familiar with the following terms prior to reading this guide.

**Batch** – In a computer, a batch job is a program that is assigned to the computer to run without further user interaction. In larger commercial computers or servers, batch jobs are usually initiated by a system user. Some are defined to run automatically at a certain time.

**DDS (Data Distribution Services)** – The DDS system supports both batch and real-time data delivery and utilizes the FIXML data formatting standard.

**ENCORE** – The clearing system utilized within OCC.

**Event Driven Processing** – A business event is a meaningful change in the state of the enterprise, such as the opening of a new customer account, clearing a trade, or the matching of a transfer. Event-driven processing is system behavior that is initiated by these business events rather than system events, such as time-based scheduling. Event-driven systems possess the following attributes: 1) Individual treatment of transactions; 2) Push delivery systems; and 3) Electronic notification.

**FIXML (Financial Information eXchange Markup Language)** – The XML derived grammar of the FIX protocol. A FIXML implementation includes message format validation, a clean, expressive structure, and leverages existing standards. The goal is to provide the ability to embed FIXML messages within traditional FIX headers and trailers.

**Messaging** – There are two major messaging server models: the point-to-point model and the publish/subscribe model. Messaging allows programs to share common message-handling code, to isolate resources and interdependencies, and to easily handle an increase in message volume. Messaging also makes it easier for programs to communicate across different programming environments (languages, compilers, and operating systems) since the only thing that each environment needs to understand is the common messaging format and protocol.

**Package** – A package is a collection of DDS transmissions that are grouped together based on selections made when the subscription was created.

**Pull Delivery Model** – In a pull information delivery model, the observer—or client—requests information from the information owner. An example of the pull delivery model is the download of a document from a webpage.

**Push Delivery Model** – In a push information delivery model, the information owner distributes the data to the observer as it deems appropriate. An example of push delivery is the sending and delivery of an email message.

**Real Time** – A level of computer responsiveness that a user senses as sufficiently immediate or that enables the computer to keep up with some external process (for example, to present trade data as trades are executed and cleared).

**Recipient** – The entity (Clearing Member Organization, Exchange, Regulatory Agency or Service Bureau) that owns the systems where DDS delivers data for processing or retransmission.

**STP (Straight-Through-Processing)** – The seamless integration of systems and processes to automate the trade process from end-to-end--trade execution, confirmation and settlement--without the need for manual intervention or the re-keying of data.

**Subscriber** – The entity (a Clearing Member Organization, Exchange, or Regulatory Agency) that requests a package of transmissions and owns the data that is transmitted to recipients.

**XML (eXtensible Markup Language)** – A simple and flexible text format derived from SGML (ISO 8879). Originally designed to meet the challenges of large-scale electronic publishing, XML also plays an important role in the exchange of a wide variety of data on the web and elsewhere. Special purpose XML languages and standards are commonly developed with several hundred already adopted since XML 1.0 was released in February 1998.

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## CFI Code Default Values

To reduce the size of the document, the standard mapping and data values for the CFI code tag is presented below and not repeated throughout the document. Only in situations where the CFI code values differ from the default values below are the CFI code values detailed in the document.

OCC attempts to provide as much product information as possible through the CFI Code. However, since this field is part of an ISO standard, OCC must limit the amount of information provided to the confines of the standard.

## CFI Code Mapping and Data Values

CFI code mapping and data values for options, warrants, and futures appear below.

### Options

**CHAR1** = O

**CHAR2** = Put/Call Code

**CHAR3** = Exercise Style Code (A = AMERICAN, E = EUROPEAN)

**CHAR4** = Classification (S = EQUITY, I = INDEX, O = OPTION, F= FUTURE, D = DEBT)

**CHAR5** = Settlement Method (P = PHYSICAL, C = CASH)

**CHAR6** = Sub-Classification Standard / Non-Standard Settlement Designation (S = STD SETTLEMENT or N = NON-STD SETTLEMENT)

### Warrants

**CHAR1** = R

**CHAR2** = W

**CHAR3** = X

**CHAR4** = X

**CHAR5** = Put/Call Code

**CHAR6** = X

### Futures

**CHAR1** = F

**CHAR2** = F

**CHAR3** = Classification (S = EQUITY, D = DEBT, I = INDEX)

**CHAR4** = Settlement Method (P = PHYSICAL, C = CASH)

**CHAR5** = Standard / Non-Standard Settlement Designation (S = STD SETTLEMENT or N = NON-STD SETTLEMENT)

**CHAR6** = X

**Note:** As shown above, an X is used when a particular CFI code attribute does not apply to the use or context within a message.

## Sample CFI Codes

Derivative Type	Classification	Sample CFI Code
Futures	Equity	FFSPSX
Futures	Index	FFICSX
Futures	Debt	FFDCSX
Option	Equity	OXASPS
Option	Index	OXEICS
Option	Futures	OXAFPS



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## Market Identifier Code Values

As of FIX 4.3, exchange codes used in FIX are those defined in the ISO 10383 standard: Market Identifier Code (MIC). A MIC value is used whenever exchange information is included in a message. The official standard and set of values are maintained by the ISO 10383 standard and any discrepancies below should be considered typographical errors. Always refer to the ISO 10383 standard for the correct set of values. As of the time of this publication the website link to view a current list of MIC values is: <https://www.iso20022.org/market-identifier-codes>.

**Note:** Refer to the current ISO 10383 standard for the complete list. The following list is a subset of the complete list and is designed primarily to support exchanges that interact with OCC.

Each of the following exchange names and their related exchange acronyms are mapped to a MIC.

### Exchange/MIC Mapping

Exchange Name	Exchange Acronym	MIC
BOX Exchange, LLC	BOX	XBOX
Cboe BZX Options Exchange	BATS	BATO
Cboe C2 Options Exchange	C2	C2OX
Cboe EDGX Options Exchange	EDGX	EDGO
Cboe Futures Exchange	CFE	XCBF
Cboe Options Exchange	CBOE	XCBO
MEMX LLC	MEMX	MXOP
MIAX Emerald, LLC	EMLD	EMLD
MIAX Options Exchange	MIAX	XMIO
MIAX PEARL, LLC	MPRL	MPRL
MIAX Sapphire, LL	SPHR	SPHR
Nasdaq BX Options	NOBO	XBXO
Nasdaq GEMX	GEM	GMNI
Nasdaq ISE	ISE	XISX
Nasdaq MRX	MCRY	MCRY
Nasdaq Options Market	NSDQ	XNDQ
Nasdaq PHLX, LLC	PHLX	XPHO
NYSE American Options	AMEX	XASE
NYSE Arca Options	ARCA	XPSE
Small Exchange, Inc.	SML	SMFE

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## Transmissions Overview

This section provides the FIXML elements, transmission layouts, message structures, and sample messages for each transmission.

This document defines the following non-proprietary ENCORE transmissions:

- Start of Day Message, page 7
- Security Definition – Security Master – Full Product, page 8
- Security List – Security Master – Full Series/Contract, page 20
- Security Master Update (Incremental), page 30
- Security Definition – Eligible Securities Report, page 78
- Security Definition – Escrow Eligible Security Report, page 81
- Market Data Full – Open Interest, page 84
- Market Data Full – Prices, page 89
- Market Data Full – Early Composite Underlying Prices, page 97
- Market Data Full – Final Composite Underlying Prices, page 99

## Layout Formatting

Layouts in this document use arrows to indicate component block levels.

Message Layout Legend – Component Block Level Examples	
→ Pty	One arrow precedes a component block that is one level down.
→ → Sub	Two arrows precede a component block that is two levels down.

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## **Start of Day Message**

### **Overview**

OCC broadcasts the Start of Day message to all real-time users indicating that a new cycle has begun. The message is broadcast only once in any one cycle.

### **Sample Message – Start of Day**

```
<DDSSODMessage BizDt="2003-09-10" SchemaVer="FIX 4.4" Snt="2006-02-09T12:53:24-05:00"/>
```

## Security Definition – Security Master – Full Product

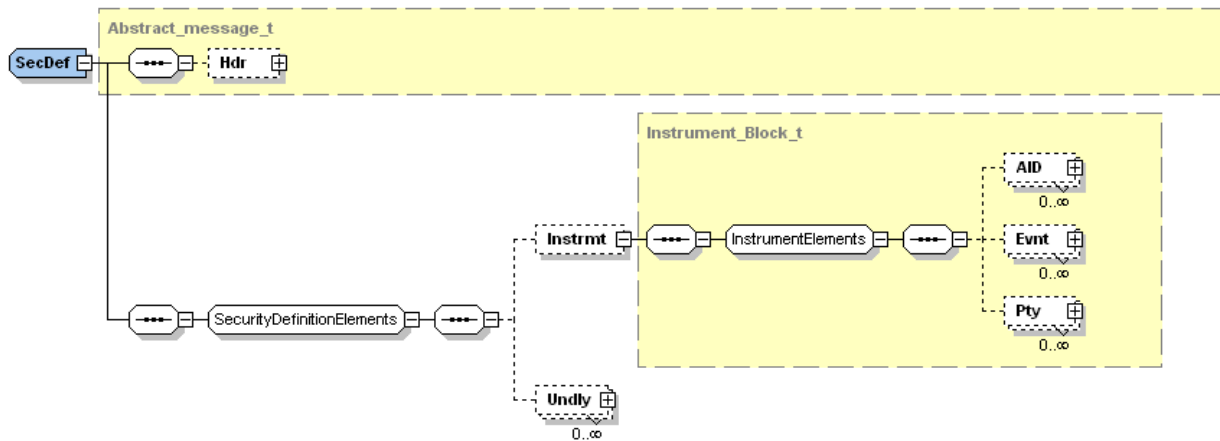
FIX Message:	Security Definition
Subscription Options:	Options Commodity Options Futures
Delivery Options:	Batch File

### Overview

Series information is available on the Security Definition Report. The Series Information file is separated into three transmissions: Full Product, Full Series, and Product/Series Updates. Likewise, the Futures Contract Information file is separated into three transmissions: Full Product, Full Series, and Product/Series Updates.

The Full Product transmission includes option or future product information such as the symbol, assignment method, exercise style, classification, position limit, near term limit, trade source listings, CUSIP, and allocation percentage. One message is created for each active or pending active product. It reflects any updates that may have been made during the day and is a snapshot of the OCC product database at the end of the business day.

### Message Structure



## Message Layout – Security Definition – Options

Security Definition – Options								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecDef							
964					RptID	Unique Identifier of the Security Definition report.	String	2001096
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-07
15					Ccy	Currency (ISO currency code) used for Price	Currency	USD
	→	Instrmt						
55					Sym	Symbol	String	IBZ
107					Desc	Sub-Classification STAN = Standard BINY = Binary FLEX = Flex RNGE = Range	String	STAN
461					CFI	Default Values (refer to page 3)	String	OXASPS
947					StrkCcy	Strike Currency	Currency	USD
967					StrkMult	Strike Multiplier	Float	1
231					Mult	Market Trade Value	Float	100
968					StrkValu	Strike Value	Float	100
966					SettlOn OpenFlag	Settle On Open Flag (Y / N)	String	N
CUST					RngLen	Range Length – Range Options	Float	50
CUST					RngIntvl	Range Interval – Range Options	Float	10
744					AsgnMeth	Assignment Method (R=Random, P=ProRata)	Char	R
CUST					CapValu	Capped Value (not currently used)	Float	
970					PosLmt	Position Limit	Integer	7500000
971					NTPosLmt	Near Term Position Limit	Integer	0
CUST					PPInd	Penny Program Indicator	String	Y
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only one Evnt block is present.</i>								
	→	→	Evnt					

Security Definition – Options								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2002-04-22
	→	→	/Evtnt					
	→	→	Evnt					
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2002-04-22
	→	→	/Evtnt					
<i>The number of Exchange Party Blocks depends on the number of the exchanges that list the product. One party block is included for each listing exchange.</i>								
	→	→	Pty					
1019					ID	Listing Exchange	String	XASE
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2002-04-22
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Listing Exchange	String	XCBO
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2002-04-22
1054					Typ	Party Type 27 = Listing Date	Integer	27
			→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Listing Exchange	String	XISX

Security Definition – Options								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2002-04-22
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
<i>If a product has more than one delivery component, then an Undly block is included for each delivery component.</i>								
	→	Undly						
311					Sym	Underlying Symbol	String	IBM
309					ID	Underlying Cusip	String	459200101
305					Src	1 = CUSIP	String	1
463					CFI	<b>CHAR1-3</b> = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) <b>CHAR4</b> = X <b>CHAR5</b> = X <b>CHAR6</b> = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100
879					Qty	Underlying Quantity	Qty	100
975					SettlTyp	Settlement Type 1 = (T+0), 2 = (T+1), 3 = (T+2), 4 = (T+3), 5 = (T+4)	Char	4
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference	String	CAFX

Security Definition – Options								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
						CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical		
988					SettlStat	Settlement Status 1 = Regular Settlement 2 = Delayed Settlement	String	1
973					CashAmt	Underlying Amount per contract	Amt	
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
<i>In the event of a symbol change and/or CUSIP change, an Underlying Security Alternate Identifier Group (UndSecAltIDGrp) sub-component is included prior to the effective date of the change(s). Once the change(s) is effective, the sub-component(s) no longer appears.</i>								
	→	→	UndAID					
458					AltID	Pending Underlying Symbol	String	IBX
459					AltIDSrc	8 = Symbol	String	8
	→	→	/UndAID					
			UndAID					
458					AltID	Pending Underlying CUSIP	String	459200105
459					AltIDSrc	1 = CUSIP	String	1
	→	→	/UndAID					
	→	/Undly						
	/SecDef							



## Sample Message – Security Definition – Daily Transmission – Options – Single Deliverable

```
<SecDef BizDt="2005-12-09" RptID="2001096" Ccy="USD">

  <Instrmt StrkValu="100" Mult="100" StrkMult="1" NTPosLmt="0" PosLmt="25000000" Sym="IBZ"
  Desc="STAN" CFI="OXASPS" StrkCcy="USD" AsgnMeth="R" SettlOnOpenFlag="N">

    <Evnt EventType="5" Dt="2002-04-22"/>
      <Pty ID="XASE" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="XCBO" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="XISX" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="XPHO" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="XPSE" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="XBOX" R="22"><Sub ID="2004-02-12" Typ="27"/></Pty>

      <Pty ID="XNDQ" R="22"><Sub ID="2002-04-22" Typ="27"/></Pty>

      <Pty ID="OCC" R="21"/>

    </Instrmt>

    <Undly Sym="IBM" ID="459200101" Src="1" Qty="100" SettlStat="1" AllocPct="100" CFI="EXXXXX"
    SettlTyp="3" SetMeth="CCC">
    </Undly>

  </SecDef>
```

## Sample Message – Security Definition – Daily Transmission – Options – Multiple Deliverables

```
<SecDef BizDt="2005-12-17" RptID="8000461" Ccy="USD">

  <Instrmt StrkValu="100" Mult="100" StrkMult="1" NTPosLmt="0" PosLmt="25000000" Sym="CTD"
  Desc="STAN" CFI="OXASPN" StrkCcy="USD" AsgnMeth="R" SettlOnOpenFlag="N">

    <Evnt EventTyp="5" Dt="2005-05-25"/>
      <Pty ID="XASE" R="22">
        <Sub ID="2005-05-24" Typ="27"/>
      </Pty>
      <Pty ID="XCBO" R="22">
        <Sub ID="2005-05-24" Typ="27"/>
      </Pty>
      <Pty ID="XPSE" R="22">
        <Sub ID="2005-05-24" Typ="27"/>
      </Pty>
      <Pty ID="OCC" R="21"/>
    </Instrmt>

    <Undly Sym="USD" Qty="100" SettlStat="1" CashAmt="2956.17" AllocPct="0" CFI="MRCXXX"
    CashTyp="FIXED" SettlTyp="3" SetMeth="CAFX"></Undly>

    <Undly Sym="YELL" ID="985577105" Src="1" Qty="31" SettlStat="1" AllocPct="100" CFI="EXXXXX"
    SettlTyp="3" SetMeth="CCC">

  </Undly>

</SecDef>
```

## Message Layout – Security Definition – Futures

Security Definition – Futures								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecDef							
964					RptID	Unique Identifier of the Security Definition report.	String	4000203
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-07
15					Ccy	Currency (ISO currency code) used for Price	Currency	USD
	→	Instrmt						
55					Sym	Symbol	String	IBM1C
48					ID	Futures Symbol	String	IBM1C
22					Src	8=Exchange Symbol	String	8
461					CFI	Default Values (refer to page 3.)	String	FFSPSX
231					Mult	Market Trade Value	Float	100
966					SettlOn OpenFlag	Settle On Open Flag (Y / N)	MultipleValue String	N
970					PosLmt	Position Limit	Numeric	7500000
<p><i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i></p>								
	→	→	Evnt					
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2002-11-21
	→	→	/Evnt					
	→	→	Evnt					
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2002-11-21
	→	→	/Evnt					
	→	→	Pty					
1019					ID	Listing Exchange	String	XOCH
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				

Security Definition – Futures								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
1053					ID	Listing Date	String	2002-11-21
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Listing Exchange	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
If a product has more than one delivery component, then an Undly block is included for each delivery component.								
	→	Undly						
311					Sym	Underlying Symbol	String	IBM
309					ID	Underlying Cusip	String	459200101
305					Src	1 = CUSIP	String	1
463					CFI	CFI Code  <b>CHAR1-3</b> = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) <b>CHAR4</b> = X <b>CHAR5</b> = X <b>CHAR6</b> = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100
879					Qty	Underlying Quantity	Qty	100

Security Definition – Futures								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical	String	CAFX
988					SettlStat	Settlement Status 1 = Regular Settlement 2 = Delayed Settlement	String	1
975					SettlTyp	Settlement Type 1 = (T+0), 2 = (T+1), 3 = (T+2), 4 = (T+3), 5 = (T+4)	Char	4
973					CashAmt	Underlying Amount per contract	Amt	
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
<i>In the event of a symbol change and/or CUSIP change, an Underlying Security Alternate Identifier Group (UndSecAltIDGrp) sub-component is included prior to the effective date of the change(s). Once the change(s) is effective, the sub-component(s) no longer appears.</i>								
	→	→	UndAID					
458					AltID	Pending Underlying Symbol	String	IBM1C
459					AltIDSrc	8 = Symbol	String	8
	→	→	/UndAID					
	→	→	UndAID					
458					AltID	Pending Underlying CUSIP	String	459200105
459					AltIDSrc	1 = CUSIP	String	1
	→	→	/UndAID					
	→	/Undly						
	/SecDef							

## Sample Message – Security Definition – Daily Transmission – Futures – Single Deliverable

```
<SecDef BizDt="2005-12-17" RptID="4000203" Ccy="USD">
  <Instrmt ID="IBM1C" Src="8" Mult="100" Sym="IBM1C" CFI="FFSPSX" SettlOnOpenFlag="N">
    <Evnt EventType="5" Dt="2002-11-21"/>
    <Pty ID="XOCH" R="22">
      <Sub ID="2002-11-21" Typ="27"/></Pty>
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Undly Sym="IBM" ID="459200101" Src="1" Qty="100" SettlStat="1" AllocPct="100" CFI="EXXXXX"
  SettlTyp="3" SetMeth="CCC">
    </Undly>
</SecDef>
```

## Sample Message – Security Definition – Daily Transmission – Futures – Multiple Deliverables

```
<SecDef BizDt="2005-12-17" RptID="8002376" Ccy="USD">
  <Instrmt ID="T2C" Src="8" Mult="100" Sym="T2C" CFI="FFSPNX" SettlOnOpenFlag="N">
    <Evnt EventTyp="5" Dt="2005-11-19"/>
    <Pty ID="XOCH" R="22">
      <Sub ID="2005-11-19" Typ="27"/></Pty>
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Undly Sym="USD" Qty="100" SettlStat="1" CashAmt="22.04" AllocPct="0" CFI="MRCXXX"
  CashTyp="FIXED" SettlTyp="3" SetMeth="CAFX">
  </Undly>
  <Undly Sym="T" ID="00206R102" Src="1" Qty="77" SettlStat="1" AllocPct="100" CFI="EXXXXX"
  SettlTyp="3" SetMeth="CCC">
  </Undly>
</SecDef>
```

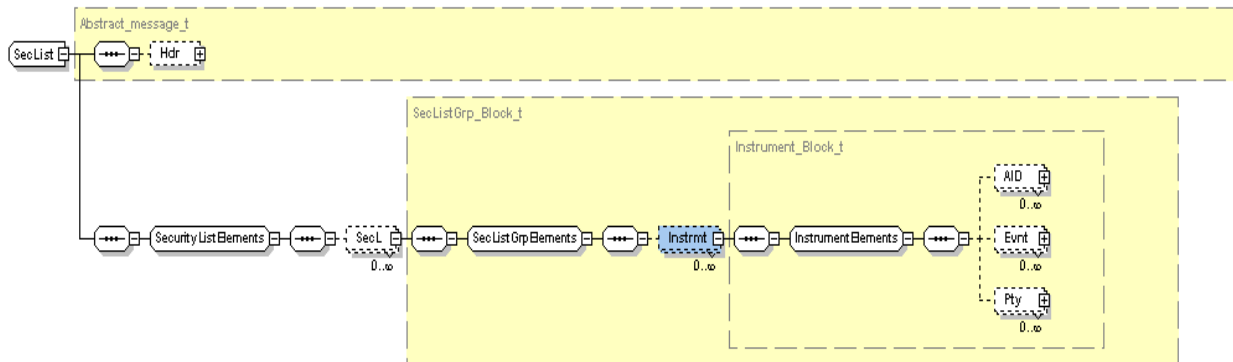
## Security List – Security Master – Full Series/Contract

FIX Message:	Security List
Subscription Options:	Options
	Commodity Options
	Futures
	Trade Sources
Delivery Options:	Batch File

### Overview

Full series/contract information is available on the Security List Report. The Full Series/Contract transmission includes option series, futures contract or trade source series. One message is created for each active or pending active option series, futures contract or trade source series. It reflects any updates that may have been made during the day and is a snapshot of the OCC product database at the end of the business day.

### Message Structure





## Message Layout – Security List – Options

Security List – Option Series								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecList							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-07
964					RptID	Unique Identifier for the Security List report.	String	6009549
	→	SecL						
	→	→	Instrmt					
55					Sym	Symbol	String	IBM
461					CFI	Default Values (refer to page 3.)	String	OCASPS
200					MMY	Series/Contract Year, Month, Date	MonthYear	20050122 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2005-01-22
202					StrkPx	Strike	Price	22.5
<i>The number of Evnt blocks present in the message depends on the product data. There is one event block present for each Listing Exchange that has designated Closing Only.</i>								
	→	→	→	Evnt				
865					EventTyp	Event Type (100 = Closing Only)	Integer	100
1019					Txt	Listing Exchange	String	XCBO
	→	→	→	/Evnt				
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-05-17
	→	→	→	/Evnt				
	→	→	→	Evnt				
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6

Security List – Option Series								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
866					Dt	Inactivation Date	LocalMktDate	2004-05-17
	→	→	→	/Evt				
	→	→	/Instrmt					
	→	/SecL						
	/SecList							

### Sample Message – Security List – Daily Transmission – Option Series

```
<SecList BizDt="2004-10-07" RptID="6009549">  
  <SecL>  
    <Instrmt Sym="IBM" CFI="OCASPS" StrkPx="22.5" MMY="20050122" MatDt="2005-01-22">  
      <Evnt EventType="5" Dt="2004-05-17"/>  
    </Instrmt>  
  </SecL>  
</SecList>
```

### Sample Message – Security List Daily – Transmission – Option Series – Closing Only Indicator

```
<SecList BizDt="2004-10-07" RptID="6009549">  
  <SecL>  
    <Instrmt Sym="IBM" CFI="OCASPS" StrkPx="22.5" MMY="20050122" MatDt="2005-01-22">  
      <Evnt EventType="100" Txt="XCBO"/>  
      <Evnt EventType="100" Txt="XBOX"/>  
      <Evnt EventType="5" Dt="2004-05-17"/>  
    </Instrmt>  
  </SecL>  
</SecList>
```

## Message Layout – Security List – Futures

Security List – Futures Contracts								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecList							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-07
964					RptID	Unique Identifier for the Security List report.	String	6064632
	→	SecL						
	→	→	Instrmt					
55					Sym	Symbol	String	IBM1C
48					ID	Futures Symbol	String	IBM1C
22					Src	8=Exchange Symbol	String	8
461					CFI	Default Values (refer to page 3.)	String	FFSPSX
200					MMY	Series/Contract Year, Month, Date	MonthYear	20041217 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2004-12-17
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-06-21
	→	→	→	/Evnt				
	→	→	→	Evnt				
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2004-06-21
	→	→	→	/Evnt				
	→	→	/Instrmt					
	→	/SecL						
	/SecList							

## Sample Message – Security List – Daily Transmission – Futures

```
<SecList BizDt="2004-10-07" RptID="6064632">  
  <SecL>  
    <Instrmt Sym="IBM1C" ID="IBM1C" Src="8" CFI="FFSPSX" MMY="20041217" MatDt="2004-12-17">  
      <Evnt EventTyp="5" Dt="2004-06-21"/>  
    </Instrmt>  
  </SecL>  
</SecList>
```

## Message Layout – Security List – Trade Source Series File

Security List – Trade Source Series File									
FIX Mapping							Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Sub Sub Sub Component Block	Fields			
	SecList								
715						BizDt	Clearing Business Date	LocalMktDate	2004-10-07
964						RptID	Unique Identifier for the Security List report.	String	6009549
	→	SecL							
	→	→	Instrmt						
55						Sym	Symbol	String	IBM
461						CFI	Default Values (refer to page 3.)	String	OCASPS
200						MMY	Series/Contract Year, Month, Date	MonthYear	20050122 (4 for year, 2 for month, 2 for day)
541						MatDt	Maturity Date	LocalMktDate	2005-01-22
202						StrkPx	Strike	Price	22.5
<i>The number of Evnt blocks present in the message depends on the product data. There is one event block present for each Listing Exchange that has designated Closing Only.</i>									
	→	→	→	Evnt					
865						EventTyp	Event Type (100 = Closing Only)	Integer	100
1019						Txt	Listing Exchange	String	XCBO
	→	→	→	/Evnt					
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>									
	→	→	→	Evnt					
865						EventTyp	Event Type (5 = Activation Date)	Integer	5
866						Dt	Activation Date	LocalMktDate	2004-05-17
	→	→	→	/Evnt					

### Security List – Trade Source Series File

FIX Mapping							Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Sub Sub Sub Component Block	Fields			
	→	→	→	Evnt					
865						EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866						Dt	Inactivation Date	LocalMktDate	2004-05-17
	→	→	→	/Evnt					
	→	→	→	Pty					
1019						ID	Listing Exchange	String	XISX
1051						R	Party Role 22 = Exchange	Integer	22
	→	→	→	→	Sub				
1053						ID	Listing Date	String	2002-04-22
1054						Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	→	/Sub				
	→	→	→	/Pty					
	→	→	/Instrmt						
	→	/SecL							
	/SecList								

## Sample Message – Security List – Daily Transmission – Trade Source Series File

```
<SecList BizDt="2018-11-12" RptID="42975053">
  <SecL>
    <Instrmt MMY="20210115" MatDt="2021-01-15" CFI="OCASPS" StrkPx="42.50" Sym="A">
      <Evnt EventType="5" Dt="2018-09-20"/>
      <Evnt EventType="6" Dt="2019-01-02"/>
      <Pty ID="AMEX" R="22">
        <Sub ID="2018-09-20" Typ="27"/></Pty>
      <Pty ID="ARCA" R="22">
        <Sub ID="2018-09-20" Typ="27"/></Pty>
    </Instrmt>
  </SecL>
</SecList>
```



## Sample Message – Security List – Daily Transmission – Trade Source Series File – Closing Only Indicator

```
<SecList RptID="43752615" BizDt="2018-12-31">
  <SecL>
    <Instrmt MMY="20190215" MatDt="2019-02-15" CFI="OCASPS" StrkPx="1" Sym="IGCC">
      <Evnt EventType="5" Dt="2018-10-30"/>
      <Evnt EventType="100" Txt="XASE"/>
      <Evnt EventType="100" Txt="XCBO"/>
      <Evnt EventType="100" Txt="XPSE"/>
      <Pty ID="XASE" R="22">
        <Sub ID="2018-10-30" Typ="27"/></Pty>
      <Pty ID="XCBO" R="22">
        <Sub ID="2018-10-30" Typ="27"/></Pty>
      <Pty ID="XPSE" R="22">
        <Sub ID="2018-10-30" Typ="27"/></Pty>
    </Instrmt>
  </SecL>
</SecList>
```

---

## Security Master Update (Incremental)

FIX Message:	Security Definition Update
	Security List Update
Subscription Options:	Options
	Commodity Options
	Futures
Delivery Options:	Batch
	Real Time

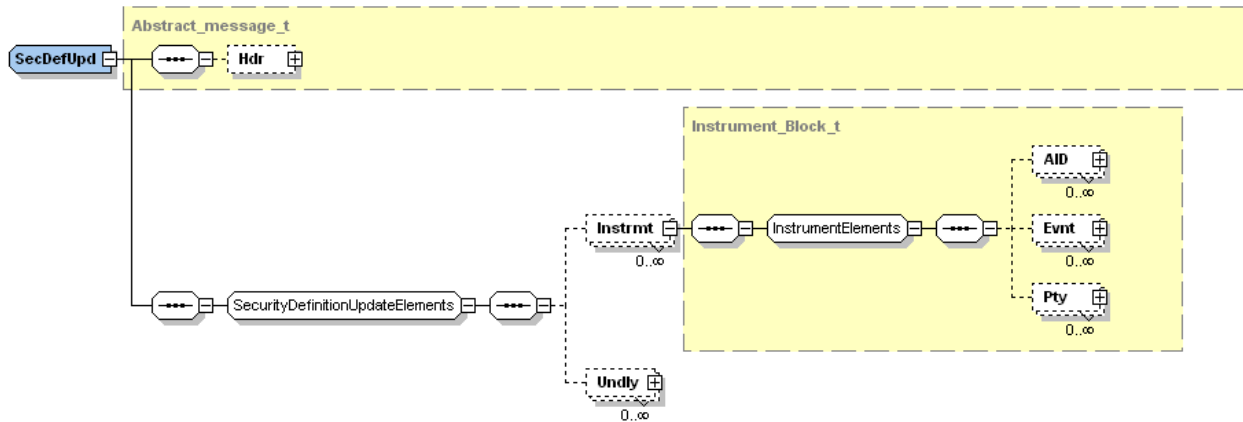
### Overview

The Security Definition Update Report includes all updates made to an option or future product such as symbol changes, position limit changes, trade source listing changes, or underlying deliverable changes. The Security List Update Report includes all updates made to an option series or future contract such as new series, deleted series, strike price changes, or ticker symbol changes. In both of these reports, the Instrument block includes updated information to the product or series. In determining how to process the block, the user must look at the Status. The updates are processed as follows:

- If the action is **ADD**, then there is one Instrument block listing the new product/series.
- If the action is **MODIFY**, then there are two Instrument blocks: one block listing the pre-change product/series and one block listing the updated product/series.
- If the action is **DELETE**, then there is one Instrument block listing the deleted product/series.

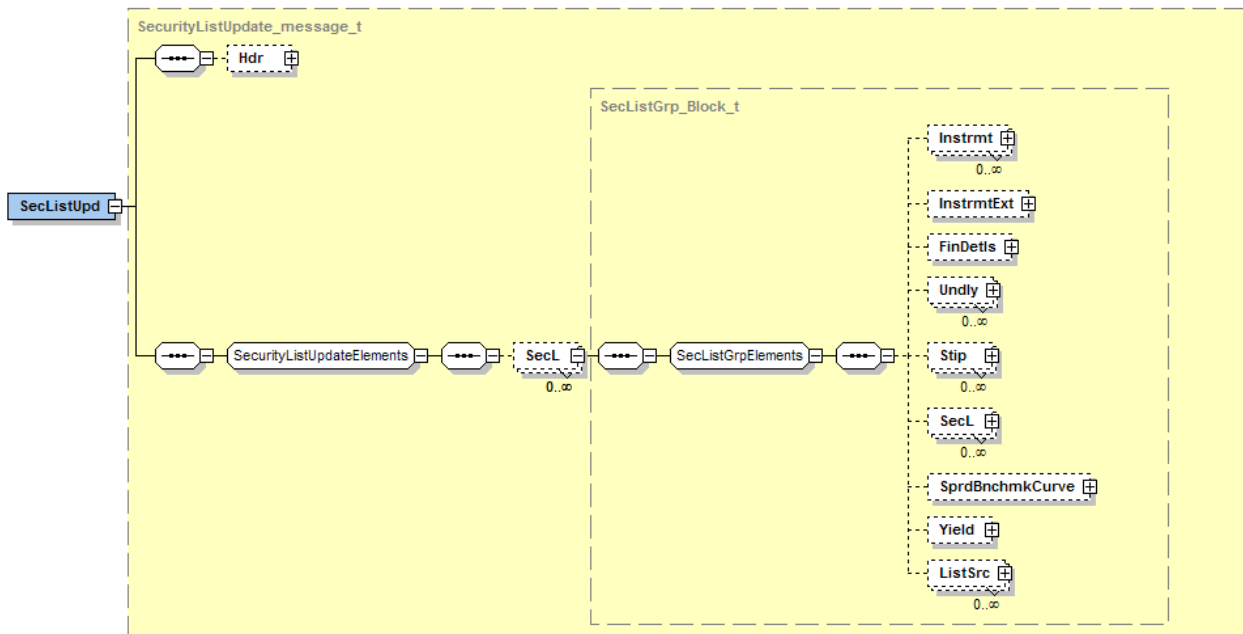
If a Clearing Member subscribes to the updates, they receive both the Security Definition Update Report and the Security List Update Report. Both product and series/contract information are included in one transmission.

## Message Structure – Security Definition Update



## Message Structure – Security List Update

**NOTE:** The below graphic includes all SecL subcomponent blocks that are available in the FIXML schema. However, OCC does not use all available subcomponent blocks.



## Message Layout – Security Definition Update – Option Product – Add

Security Definition Update – Option Product – Add								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecDefUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-18
964					RptID	Unique Identifier for the Security Definition Update report	String	7012055
15					Ccy	Currency used for Price	Currency	USD
980					UpdActn	Update Action Code (A/M/D)	Char	A
	→	Instrmt						
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	1
55					Sym	Symbol	String	CAO
107					Desc	Sub-Classification (STAN, BINY, FLEX, RNGE )	String	STAN
461					CFI	Default Values (refer to page 3.)	String	OXASPS
947					StrkCcy	Strike Currency	Currency	USD
967					StrkMult	Strike Multiplier	Float	1
231					Mult	Market Trade Value	Float	100
968					StrkValu	Strike Value	Float	100
966					SettlOnOpen Flag	Settle On Open Flag (Y / N)	MultipleValue String	Y
CUST					RngLen	Range Length – Range Options	Float	50
CUST					RngIntvl	Range Interval – Range Options	Float	10
744					AsgnMeth	Assignment Method (R=Random, P=ProRata)	Char	R
CUST					CapValu	Capped Value (not currently used)	Float	
970					PosLmt	Position Limit	Integer	7500000
971					NTPosLmt	Near Term Position Limit	Integer	0
CUST					PPInd	Penny Program Indicator	String	Y
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	Evnt					
865					EventTyp	Event Type (5 = Activation Date)	Integer	5

Security Definition Update – Option Product – Add								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
866					Dt	Activation Date	LocalMktDate	2004-10-18
	→	→	/Evt					
	→	→	Evt					
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2004-10-18
	→	→	/Evt					
	→	→	Pty					
1019					ID	Listing Exchange	String	XASE
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2004-10-18
1054					Typ	Party Role 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Undly						
311					Sym	Underlying Symbol	String	CAO
309					ID	Underlying Cusip	String	125965103
305					Src	1 = CUSIP	String	1

**Security Definition Update – Option Product – Add**

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
463					CFI	CHAR1-3 = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) CHAR4 = X CHAR5 = X CHAR6 = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100
879					Qty	Underlying Quantity	Qty	100
975					SettlTyp	Settlement Type 1 = (T+0), 2 = (T+1), 3 = (T+2), 4 = (T+3), 5 = (T+4)	Char	4
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical	String	CCC
988					SettlStat	Settlement Status 1 = Regular Settlement 2 = Pended Settlement	String	1
973					CashAmt	Underlying Amount per contract	Amt	
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
	→	/Undly						
		/SecDefUpd						

## Sample Message – Security Definition Update – Daily Option Transmission – Add

```
<SecDefUpd BizDt="2005-12-17" RptID="8016564" UpdActn="A" Ccy="USD">

  <Instrmt Status="1" Sym="AFY" Desc="STAN" CFI="OXASPN" StrkCcy="USD" StrkMult="1"
  StrkValu="100" Mult="100" SettlOnOpenFlag="N" AsgnMeth="R" PosLmt="2500000" NTPosLmt="0">

    <Evnt EventType="5" Dt="2005-12-19"/>
      <Pty R="22" ID="XASE">
        <Sub Typ="27" ID="2005-12-17"/>
      </Pty>
      <Pty R="22" ID="XCBO">
        <Sub Typ="27" ID="2005-12-17"/>
      </Pty>
      <Pty R="22" ID="XPHO">
        <Sub Typ="27" ID="2005-12-17"/>
      </Pty>
      <Pty R="22" ID="XPSE">
        <Sub Typ="27" ID="2005-12-17"/>
      </Pty>
      <Pty ID="OCC" R="21"/>
    </Instrmt>

    <Undly SettlTyp="3" SettlStat="1" SetMeth="CAFX" AllocPct="0" Qty="100" CashAmt="50"
    CashTyp="FIXED" Sym="USD" CFI="MRCXXX">

  </Instrmt>

  <Undly SettlTyp="3" SettlStat="1" SetMeth="CCC" AllocPct="100" Qty="100" Sym="ONEQ"
  ID="315912808" CFI="EXXXXX" Src="1">

</Undly>

</SecDefUpd>
```

### Message Layout – Security Definition Update – Futures Product – Add

Security Definition Update – Futures Product – Add							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block			
	SecDefUpd						
715					BizDt	Clearing Business Date	LocalMktDate 2004-10-07
964					RptID	Unique Identifier for the Security Definition Update report	String 22176
15					Ccy	Currency used for Price	Currency USD
980					UpdActn	Update Action Code (A/M/D)	Char A
	→	Instrmt					
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer 1
55					Sym	Symbol	String IBM1C
48					ID	Futures Symbol	String IBM1C
22					Src	8 = Exchange Symbol	String 8
461					CFI	Default Values (refer to page 3.)	String FFSPSX
231					Mult	Market Trade Value	Float 100
966					SettlOnOpen Flag	Settle On Open Flag (Y / N)	MultipleValue String N
<p><i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i></p>							
	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer 5
866					Dt	Activation Date	LocalMktDate 2004-10-18
	→	→	/Evnt				
	→	→	Evnt				
865					EventTyp	Event Type (6 = Inactivation Date)	Integer 6
866					Dt	Inactivation Date	LocalMktDate 2004-10-18
	→	→	/Evnt				
	→	→	Pty				
1019					ID	Listing Exchange	String XOCH
1051					R	Party Role	Integer 22



### Security Definition Update – Futures Product – Add

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
						22 = Exchange		
	→	→	→	Sub				
1053					ID	Listing Date	String	2004-10-18
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Undly						
311					Sym	Underlying Symbol	String	IBM
309					ID	Underlying Cusip	String	459200101
305					Src	1 = CUSIP	String	1
463					CFI	<b>CHAR1-3</b> = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) <b>CHAR4</b> = X <b>CHAR5</b> = X <b>CHAR6</b> = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100.000000
879					Qty	Underlying Quantity	Qty	100.000000
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference	String	CAFX

Security Definition Update – Futures Product – Add								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
						CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical		
988					SettlStat	Settlement Status 1 = Regular Settlement 2 = Pended Settlement	String	1
973					CashAmt	Underlying Amount per contract	Amt	
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
	→	/Undly						
		/SecDefUpd						

## Sample Message – Security Definition Update – Futures Product – Add

```
<SecDefUpd BizDt="2004-10-07" RptID="22176" UpdActn="A" Ccy="USD">  
  <Instrmt Status="1" Sym="IBM1C" ID="IBM1C" Src="8" CFI="FFSPSX" SettlOnOpenFlag="N"  
    Mult="100" >  
    <Evnt EventTyp="5" Dt="2004-10-18"/>  
    <Pty ID="XOCH" R="22">  
      <Sub ID="2004-10-18" Typ="27"/>  
    </Pty>  
  </Instrmt>  
  <Undly Sym="IBM" ID="459200101" Src="1" SetMeth="CCC" SettlStat="N" Qty="100" AllocPct="100"  
    CFI="EXXXXX" SettlTyp="3"/>  
</SecDefUpd>
```

### Message Layout – Security Definition Update – Option Product – Modify

Security Definition Update – Option Product – Modify								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecDefUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-18
964					RptID	Unique Identifier for the Security Definition Update report	String	7012047
15					Ccy	Currency used for Price	Currency	USD
980					UpdActn	Update Action Code (A/M/D)	Char	M
	→	Instrmt						
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55					Sym	Symbol	String	NUE
461					CFI	CHAR1 = O CHAR2 = X CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	OXXXXX
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Instrmt						
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	1
55					Sym	Symbol	String	NUE
107					Desc	Sub-Classification (STAN, BINY, FLEX, RNGE)	String	STAN
461					CFI	Default Values (refer to page 3.)	String	OXASPS
947					StrkCcy	Strike Currency	Currency	USD
967					StrkMult	Strike Multiplier	Float	1
231					Mult	Market Trade Value	Float	100

### Security Definition Update – Option Product – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
968					StrkValu	Strike Value	Float	100
966					SettlOnOpen Flag	Settle On Open Flag (Y / N)	MultipleValue String	Y
CUST					RngLen	Range Length – Range Options	Float	50
CUST					RngIntvl	Range Interval – Range Options	Float	10
744					AsgnMeth	Assignment Method (R=Random, P=ProRata)	Char	R
CUST					CapValu	Capped Value (not currently used)	Float	
970					PosLmt	Position Limit	Integer	15000000
971					NTPosLmt	Near Term Position Limit	Integer	0
CUST					PPInd	Penny Program Indicator	String	Y
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	Evnt					
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	1990-12-03
	→	→	/Evnt					
	→	→	Evnt					
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	1990-12-03
	→	→	/Evnt					
	→	→	Pty					
1019					ID	Listing Exchange	String	XASE
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2002-02-19
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					

**Security Definition Update – Option Product – Modify**

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	→	→	Pty					
1019					ID	Listing Exchange	String	XCBO
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	1990-12-13
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Listing Exchange	String	XISX
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2004-05-24
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Listing Exchange	String	XPHO
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2002-09-25
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					

### Security Definition Update – Option Product – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Undly						
311					Sym	Underlying Symbol	String	NUE
309					ID	Underlying Cusip	String	670346105
305					Src	1 = CUSIP	String	1
463					CFI	<b>CHAR1-3</b> = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) <b>CHAR4</b> = X <b>CHAR5</b> = X <b>CHAR6</b> = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100
879					Qty	Underlying Quantity	Qty	100
975					SettlTyp	Settlement Type 1 = (T+0), 2 = (T+1), 3 = (T+2), 4 = (T+3), 5 = (T+4)	Char	4
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical	String	CCC
988					SettlStat	Settlement Status 1 = Regular Settlement 2 = Pended Settlement	String	1
973					CashAmt	Underlying Amount per contract	Amt	

### Security Definition Update – Option Product – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
<i>In the event of a symbol change and/or CUSIP change, an Underlying Security Alternate Identifier Group (UndSecAltIDGrp) sub-component are included prior to the effective date of the change(s). Once the change(s) is effective, the sub-component(s) no longer appears.</i>								
	→	→	UndAID					
458					AltID	Pending Underlying Symbol	String	NUX
459					AltIDSrc	8 = Symbol	String	8
	→	→	/UndAID					
	→	→	UndAID					
458					AltID	Pending Underlying CUSIP	String	670345678
459					AltIDSrc	1 = CUSIP	String	1
	→	→	/UndAID					
	→	/Undly						
	/SecDefUpd							



## Sample Message – Security Definition Update – Daily Option Transmission – Modify

```
<SecDefUpd BizDt="2005-12-09" RptID="8015986" UpdActn="M" Ccy="USD">
  <Instrmt Status="2" Sym="IWB" CFI="OXXXXX">
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Instrmt Status="1" Sym="IWB" Desc="STAN" CFI="OXASPS" StrkCcy="USD" StrkMult="1"
  StrkValu="100" Mult="100" SettlOnOpenFlag="N" AsgnMeth="R" PosLmt="7500000" NTPosLmt="0">
    <Evnt EventType="5" Dt="2000-05-26"/>
    <Pty R="22" ID="XASE">
      <Sub Typ="27" ID="2000-05-26"/>
    </Pty>
    <Pty R="22" ID="XCBO">
      <Sub Typ="27" ID="2002-12-20"/>
    </Pty>
    <Pty R="22" ID="XPSE">
      <Sub Typ="27" ID="2002-12-17"/>
    </Pty>
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Undly SettlTyp="3" SettlStat="1" SetMeth="CCC" AllocPct="100" Qty="100" Sym="IWB"
  ID="464287622" CFI="EXXXXX" Src="1">
  </Undly>
</SecDefUpd>
```

**Message Layout – Security Definition Update – Futures Product – Modify**

Security Definition Update – Futures Product – Modify								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecDefUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-20
964					RptID	Unique Identifier for the Security Definition Update report	String	7012057
15					Ccy	Currency used for Price	Currency	USD
980					UpdActn	Update Action Code (A/M/D)	Char	M
	→	Instrmt						
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55					Sym	Symbol	String	CAT1C
48					ID	Futures Symbol	String	CAT1C
22					Src	8 = Exchange Symbol	String	8
461					CFI	<b>CHAR1 = F</b> <b>CHAR2 = X</b> <b>CHAR3 = X</b> <b>CHAR4 = X</b> <b>CHAR5 = X</b> <b>CHAR6 = X</b>	String	FXXXXX
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Instrmt						
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	1
55					Sym	Symbol	String	CAT1C
48					ID	Futures Symbol	String	CAT1C
22					Src	8 = Exchange Symbol	String	8
461					CFI	Default Values (refer to page 3)	String	FFSPSX

### Security Definition Update – Futures Product – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
231					Mult	Market Trade Value	Float	100
966					SettleOnOpen Flag	Settle On Open Flag (Y / N)	MultipleValue String	N
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	Evnt					
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-09-05
	→	→	/Evnt					
	→	→	Evnt					
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2004-09-05
	→	→	/Evnt					
	→	→	Pty					
1019					ID	Listing Exchange	String	XOCH
1051					R	Party Role 22 = Exchange	Integer	22
	→	→	→	Sub				
1053					ID	Listing Date	String	2004-09-05
1054					Typ	Party Type 27 = Listing Date	Integer	27
	→	→	→	/Sub				
	→	→	/Pty					
	→	→	Pty					
1019					ID	Clearing Corp.	String	OCC
1051					R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty					
	→	/Instrmt						
	→	Undly						
311					Sym	Underlying Symbol	String	CAT

### Security Definition Update – Futures Product – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
309					ID	Underlying Cusip	String	149123101
305					Src	1 = CUSIP	String	1
463					CFI	<b>CHAR1-3</b> = Instrument (EXX = EQUITY, MRI = INDEX, DXX = DEBT, FXX = FUTURE) <b>CHAR4</b> = X <b>CHAR5</b> = X <b>CHAR6</b> = X	String	EXXXXX
972					AllocPct	Allocation Pct	Percentage	100
879					Qty	Underlying Quantity	Qty	100
975					SettlTyp	Settlement Type 1 = (T+0), 2 = (T+1), 3 = (T+2), 4 = (T+3), 5 = (T+4)	Char	4
1039					SetMeth	Settlement Method BTOB – Broker to Broker CADF – Cash Difference CAFX – Cash Fixed CCC – Correspondent Clearing Corp CFR – Cash Fixed Return POST – Positional PHYS – Physical	String	CCC
988					SettlStat	Settlement status 1 = Regular Settlement 2 = Pended Settlement	String	1
973					CashAmt	Underlying Amount per contract	Amt	
974					CashTyp	Underlying Cash Type DIFF = Cash Differential, FIXED = Fixed Cash Amount	String	
<i>In the event of a symbol change and/or CUSIP change, an Underlying Security Alternate Identifier Group (UndSecAltIDGrp) sub-component is included prior to the effective date of the change(s). Once the change(s) is effective, the sub-component(s) no longer appears.</i>								
	→	→	UndAID					
458					AltID	Pending Underlying Symbol	String	CAX1C
459					AltIDSrc	8 = Symbol	String	8

**Security Definition Update – Futures Product – Modify**

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	→	→	/UndAID					
			UndAID					
458	→	→			AltID	Pending Underlying CUSIP	String	670345678
459					AltIDSrc	1 = CUSIP	String	1
			/UndAID					
	→	/Undly						
	/SecDefUpd							

## Sample Message – Security Definition Update – Daily Futures Transmission – Modify

```
<SecDefUpd RptID="8016439" Ccy="USD" BizDt="2005-12-17" UpdActn="M">
  <Instrmt Status="2" Sym="CB1C" ID="CB1C" Src="8" CFI="FXXXXX">
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Instrmt Status="1" Sym="CB1C" ID="CB1C" Src="8" CFI="FFSPSX" Mult="100"
  SettlOnOpenFlag="N">
    <Evnt EventType="5" Dt="2005-09-09"/>
    <Pty ID="XOCH" R="22">
      <Sub ID="2005-09-09" Typ="27"/>
    </Pty>
    <Pty ID="OCC" R="21"/>
  </Instrmt>
  <Undly Sym="CB" ID="171232101" Src="1" CFI="EXXXXX" AllocPct="100" Qty="100" SetMeth="CCC"
  SettlStat="1">
  </Undly>
</SecDefUpd>
```

### Message Layout – Security Definition Update – Option Product – Delete

Security Definition Update – Option Product - Delete							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	SecDefUpd						
715				BizDt	Clearing Business Date	LocalMktDate	2004-10-22
964				RptID	Unique Identifier for the Security Definition Update report	String	7012398
980				UpdActn	Update Action Code (A/M/D)	Char	D
	→	Instrmt					
965				Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55				Sym	Symbol	String	MSQ
461				CFI	CHAR1 = O CHAR2 = X CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	OXXXXX
	→	→	Pty				
1019				ID	Clearing Corp.	String	OCC
1051				R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty				
	→	/Instrmt					
	/SecDefUpd						

## Sample Message – Security Definition Update – Daily Option Transmission – Delete

```
<SecDefUpd BizDt="2004-10-22" RptID="7012398" UpdActn="D">  
  <Instrmt Status="2" Sym="MSQ" CFI="OXXXXX">  
    <Pty ID="OCC" R="21"/>  
  </Instrmt>  
</SecDefUpd>
```



### Message Layout – Security Definition Update – Futures Product – Delete

Security Definition Update – Futures Product – Delete							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	SecDefUpd						
715				BizDt	Clearing Business Date	LocalMktDate	2004-10-22
964				RptID	Unique Identifier for the Security Definition Update report	String	7012398
980				UpdActn	Update Action Code (A/M/D)	Char	D
	→	Instrmt					
965				Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55				Sym	Symbol	String	IBM1N
48				ID	Futures Symbol	String	IBM1N
22				Src	8 = Exchange Symbol	String	8
461				CFI	CHAR1 = F CHAR2 = X CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	FXXXXX
	→	→	Pty				
1019				ID	Clearing Corp.	String	OCC
1051				R	Party Role 21 = Clearing Organization	Integer	21
	→	→	/Pty				
	→	/Instrmt					
	/SecDefUpd						

## Sample Message – Security Definition Update – Daily Futures Transmission – Delete

```
<SecDefUpd BizDt="2004-10-22" RptID="7012398" UpdActn="D">  
  <Instrmt Status="2" Sym="IBM1N" ID="IBM1N" Src="8" CFI="FXXXXX">  
    <Pty ID="OCC" R="21"/>  
  </Instrmt>  
</SecDefUpd>
```

## Message Layout – Security List Update – Option Series – Add

Security List Update – Option Series – Add							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block			
	SecListUpd						
715					BizDt	Clearing Business Date	LocalMktDate 2004-07-20
964					RptID	Unique Identifier for the Security List Update report	String 450044140
292					CorpActn	Corporate Action Code (see chart on page 75)	String
980					UpdateActn	Update Action Code (A/M/D)	String A
	→	SecL					
	→	→	Instrmt				
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer 1
55					Sym	Symbol	String OSO
461					CFI	Default Values (refer to page 3)	String OCASPS
200					MMY	Series/Contract Year, Month, Date	MonthYear 20070120 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate 2007-01-20
202					StrkPx	Strike	Price 15
<p><i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i></p>							
	→	→	→	Evnt			
865					EventTyp	Event Type (5 = Activation Date)	Integer 5
866					Dt	Activation Date	LocalMktDate 2004-10-18
	→	→	→	/Evnt			
	→	→	→	Evnt			
865					EventTyp	Event Type (6 = Inactivation Date)	Integer 6
866					Dt	Inactivation Date	LocalMktDate 2004-10-18
	→	→	→	/Evnt			
	→	→	/Instrmt				
	→	/SecL					

Security List Update – Option Series – Add							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block			
	/SecListUpd						

## Sample Message – Security List Update – Option Series – Add

```
<SecListUpd RptID="7071286" UpdActn="A" BizDt="2004-10-18">  
  <SecL>  
    <Instrmt Status="1" Sym="OSO" MMY="20070120" MatDt="2007-01-20" CFI="OCASPS"  
      StrkPx="15">  
      <Evnt EventType="5" Dt="2004-10-21"/>  
    </Instrmt>  
  </SecL>  
</SecListUpd>
```

### Message Layout – Security List Update – Futures Contract – Add

Security List Update – Futures Contract – Add							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block			
	SecListUpd						
715					BizDt	Clearing Business Date	LocalMktDate 2004-10-18
964					RptID	Unique Identifier for the Security List Update report	String 7071458
292					CorpActn	Corporate Action Code (see chart on page 75)	String
980					UpdateActn	Update Action Code (A/M/D)	String A
	→	SecL					
	→	→	Instrmt				
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer 1
55					Sym	Symbol	String ZA
48					ID	Futures Symbol	String ZA
22					Src	8 = Exchange Symbol	String 8
461					CFI	Default Values (refer to page 3)	String FFCCSX
200					MMY	Series/Contract Year, Month, Date	MonthYear 20050114 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate 2005-01-14
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>							
	→	→	→	Evnt			
865					EventTyp	Event Type (5 = Activation Date)	Integer 5
866					Dt	Activation Date	LocalMktDate 2004-10-21
	→	→	→	/Evnt			
	→	→	→	Evnt			
865					EventTyp	Event Type (6 = Inactivation Date)	Integer 6
866					Dt	Inactivation Date	LocalMktDate 2004-10-21
	→	→	→	/Evnt			
	→	→	/Instrmt				

Security List Update – Futures Contract – Add								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	→	/SecL						
		/SecListUpd						

## Sample Message – Security List Update – Futures Contract – Add

```
<SecListUpd RptID="7071458" BizDt="2004-10-18" UpdActn="A">  
  <SecL>  
    <Instrmt Status="1" Sym="ZA" ID="ZA" Src="8" MMY="20050114" MatDt="2005-01-14"  
      CFI="FFCCSX">  
      <Evnt EventType="5" Dt="2004-10-21"/>  
    </Instrmt>  
  </SecL>  
</SecListUpd>
```



### Message Layout – Security List Update – Option Series – Modify

Security List Update – Option Series – Modify								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecListUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-22
964					RptID	Unique Identifier for the Security List Update report	String	7074360
292					CorpActn	Corporate Action Code (see chart on page 75)	String	
980					UpdateActn	Update Action Code (A/M/D)	String	M
	→	SecL						
	→	→	Instrmt					
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55					Sym	Symbol	String	IWO
461					CFI	CHAR1 = O CHAR2 = Put/Call Code CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	OCXXXX
200					MMY	Series/Contract Year, Month, Date	MonthYear	20050219 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2005-02-19
202					StrkPx	Strike	Price	75
	→	→	→	Evnt				
865					EventTyp	Event Type (100 = Closing Only)	Integer	100
866					Txt	Listing Exchange	String	XCBO
	→	→	→	/Evnt				
	→	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-06-21

### Security List Update – Option Series – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	→	→	→	/Evtnt				
	→	→	/Instrmt					
	→	→	Instrmt					
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	1
55					Sym	Symbol	String	IWO
461					CFI	Default Values (refer to page 3)	String	OCASPS
200					MMY	Series/Contract Year, Month, Date	MonthYear	20050219 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2005-02-19
202					StrkPx	Strike	Price	75
<i>The number of Evtnt blocks present in the message depends on the product data. There is one event block present for each Listing Exchange that has designated a series as Closing Only.</i>								
	→	→	→	Evtnt				
865					EventTyp	Event Type (100 = Closing Only)	Integer	100
866					Txt	Listing Exchange	String	XCBO
	→	→	→	/Evtnt				
<i>The number of Evtnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evtnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evtnt block is present.</i>								
	→	→	→	Evtnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-06-21
	→	→	→	/Evtnt				
	→	→	→	Evtnt				
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2004-06-28
	→	→	→	/Evtnt				
	→	→	/Instrmt					
		/SecL						
	/SecListUpd							

## Sample Message – Security List Update – Option Series – Modify

```
<SecListUpd RptID="7074360" UpdActn="M" BizDt="2004-06-27">  
  <SecL>  
    <Instrmt Status="2" Sym="IWO" CFI="OCXXXX" MMY="20050219" MatDt="2005-02-19"  
      StrkPx="75">  
      <Evnt EventType="5" Dt="2004-06-21"/>  
    </Instrmt>  
    <Instrmt Status="1" Sym="IWO" MMY="20050219" MatDt="2005-02-19" CFI="OCASPS"  
      StrkPx="75">  
      <Evnt EventType="5" Dt="2004-06-21"/>  
      <Evnt EventType="6" Dt="2004-06-28"/>  
    </Instrmt>  
  </SecL>  
</SecListUpd>
```

## Sample Message – Security List Update – Option Series – Modify – Closing Only Indicator

```
<SecListUpd RptID="7074360" UpdActn="M" BizDt="2004-06-27">
  <SecL>
    <Instrmt Status="2" Sym="IWO" CFI="OCXXXX" MMY="20050219" MatDt="2005-02-19"
      StrkPx="75">
      <Evnt EventType="100" Txt="XCBO"/>
      <Evnt EventType="5" Dt="2004-06-21"/>
    </Instrmt>
    <Instrmt Status="1" Sym="IWO" MMY="20050219" MatDt="2005-02-19" CFI="OCASPS"
      StrkPx="75">
      <Evnt EventType="100" Txt="XCBO"/>
      <Evnt EventType="100" Txt="XBOX"/>
      <Evnt EventType="5" Dt="2004-06-21"/>
      <Evnt EventType="6" Dt="2004-06-28"/>
    </Instrmt>
  </SecL>
</SecListUpd>
```

### Message Layout – Security List Update – Futures Contract – Modify

Security List Update – Futures Contract – Modify							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block			
	SecListUpd						
715					BizDt	Clearing Business Date	LocalMktDate 2004-10-22
964					RptID	Unique Identifier for the Security List Update report	String 7074438
292					CorpActn	Corporate Action Code (see chart on page 75)	String
980					UpdateActn	Update Action Code (A/M/D)	String M
	→	SecL					
	→	→	Instrmt				
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer 2
55					Sym	Symbol	String AMD1N
48					ID	Futures Symbol	String AMD1N
22					Src	8 = Exchange Symbol	String 8
461					CFI	CHAR1 = F CHAR2 = X CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String FXXXXX
200					MMY	Series/Contract Year, Month, Date	MonthYear 20041217 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate 2004-12-17
	→	→	→	Evnt			
865					EventTyp	Event Type (5 = Activation Date)	Integer 5
866					Dt	Activation Date	LocalMktDate 2003-09-22
	→	→	→	/Evnt			
	→	→	/Instrmt				
	→	→	Instrmt				

### Security List Update – Futures Contract – Modify

FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	1
55					Sym	Symbol	String	AMD1N
48					ID	Futures Symbol	String	AMD1N
22					Src	8 = Exchange Symbol	String	8
461					CFI	Default Values (refer to page 3)	String	FFSPSX
200					MMY	Series/Contract Year, Month, Date	MonthYear	20041217 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2004-12-17
<i>The number of Evnt blocks present in the message depends on the product data. If a product has both an activation and inactivation date, then two Evnt blocks are present. If an Activation Date exists without a corresponding Inactivation Date, then only a single Evnt block is present.</i>								
	→	→	→		Evnt			
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2003-09-22
	→	→	→		/Evnt			
	→	→	→		Evnt			
865					EventTyp	Event Type (6 = Inactivation Date)	Integer	6
866					Dt	Inactivation Date	LocalMktDate	2004-10-25
	→	→	→		/Evnt			
	→	→			/Instrmt			
		→			/SecL			
	→				/SecListUpd			

## Sample Message – Security List Update – Futures Contract – Modify

```
<SecListUpd RptID="7074438" BizDt="2004-10-22" UpdActn="M">
  <SecL>
    <Instrmt Status="2" Sym="AMD1N" ID="AMD1N" Src="8" MMY="20041217" MatDt="2004-12-17"
      CFI="FXXXXX">
      <Evnt EventType="5" Dt="2003-09-22"/>
    </Instrmt>
    <Instrmt Status="1" Sym="AMD1N" ID="AMD1N" Src="8" MMY="20041217" MatDt="2004-12-17"
      CFI="FFSPSX">
      <Evnt EventType="5" Dt="2003-09-22"/>
      <Evnt EventType="6" Dt="2004-10-25"/>
    </Instrmt>
  </SecL>
</SecListUpd>
```

### Message Layout – Security List Update – Option Series – Delete

Security List Update – Option Series – Delete								
FIX Mapping						Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Sub Sub Component Block	Fields			
	SecListUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-22
964					RptID	Unique Identifier for the Security List Update report	String	7075520
980					UpdateActn	Update Action Code (A/M/D)	String	D
	→	SecL						
	→	→	Instrmt					
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55					Sym	Symbol	String	WRV
461					CFI	CHAR1 = O CHAR2 = Put/Call Code CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	OCXXXX
200					MMY	Series/Contract Year, Month, Date	MonthYear	20050122 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2005-01-22
202					StrkPx	Strike	Price	47.500000
	→	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2004-10-25
	→	→	→	/Evnt				
			/Instrmt					
	→	/SecL						
	/SecListUpd							



## Sample Message – Security List Update – Option Series – Delete

```
<SecListUpd RptID="7075520" UpdActn="D" BizDt="2004-10-30">  
  <SecL>  
    <Instrmt Status="2" Sym="WRV" CFI="OCXXXX" MMY="20050122" MatDt="2005-01-22"  
      StrkPx="47.5">  
      <Evnt EventTyp="5" Dt="2004-10-25"/>  
    </Instrmt>  
  </SecL>  
</SecListUpd>
```

### Message Layout – Security List Update – Futures Contract – Delete

Security List Update – Futures Contract – Delete								
Tag #	Report Block	Component Block	FIX Mapping			Data	Data Type	Sample Data
			Sub Component Block	Sub Sub Component Block	Fields			
	SecListUpd							
715					BizDt	Clearing Business Date	LocalMktDate	2004-10-19
964					RptID	Unique Identifier for the Security List Update report	String	7072350
980					UpdateActn	Update Action Code (A/M/D)	String	D
	→	SecL						
	→	→	Instrmt					
965					Status	Instrument Status (1=Active, 2=Inactive)	Integer	2
55					Sym	Symbol	String	ABX1N
48					ID	Futures Symbol	String	ABX1N
22					Src	8 = Exchange Symbol	String	8
461					CFI	CHAR1 = F CHAR2 = X CHAR3 = X CHAR4 = X CHAR5 = X CHAR6 = X	String	FXXXXX
200					MMY	Series/Contract Year, Month, Date	MonthYear	20041217 (4 for year, 2 for month, 2 for day)
541					MatDt	Maturity Date	LocalMktDate	2004-12-17
	→	→	→	Evnt				
865					EventTyp	Event Type (5 = Activation Date)	Integer	5
866					Dt	Activation Date	LocalMktDate	2003-09-22
	→	→	→	/Evnt				
			/Instrmt					
		/SecL						
	/SecListUpd							



## Sample Message – Security List Update – Futures Contract – Delete

```
<SecListUpd RptID="7072350" BizDt="2004-10-30" UpdActn="D">  
  <SecL>  
    <Instrmt Status="2" Sym="ABX1N" ID="ABX1N" Src="8" MMY="20041217" MatDt="2004-12-17"  
      CFI="FXXXXX">  
      <Evnt EventType="5" Dt="2004-10-25"/>  
    </Instrmt>  
  </SecL>  
</SecListUpd>
```

### **Sample Message – Security Update – Futures Product and Contract – End-Of-Day Futures Transmission \***

```
<DDSEODMessage BizDt="2003-09-10" MsgTypeCode="SECUPD" SchemaVer="FIX 4.4" TransProductSet="FUTU"  
NoMessagesSent="17"/>
```

### **Sample Message – Security Update – Options Product and Contract – End-Of-Day Option Transmission \***

```
<DDSEODMessage BizDt="2003-09-10" MsgTypeCode="SECUPD" SchemaVer="FIX 4.4" TransProductSet="OPTN"  
NoMessagesSent="125"/>
```

\* The number of messages sent on the End-Of-Day Security Update transmissions reflect totals of both product and series/contract messages because these messages use the same Transmission ID.

## **Implementation Considerations**

### **Corporate Actions Processing**

#### Products

A Security Definition Update message with an Update Action of Add is generated for the new product. This message includes a single Instrument block with a status of Active. No notification is made of the adjusted product since OCC will continue to maintain the product as active for an undetermined amount of time due to possible processing issues. If the product is made inactive at some later date, the inactivation will be sent to DDS subscribers at that time but the relationship to the corporate action will not be communicated.

#### Series/Contracts

A Security List Update message with an Update Action of Modify is generated to show the modification of the Inactivate Date on the old series or contract. This message includes two Instrument blocks: one with a status of 2 (Old) and another with a status of 1 (New).

A Security List Update message with an Update Action of Add is generated for the new series or contract. This message includes a single Instrument block with a status of 1 (New).

A Security List Update message with an Update Action of Modify and the appropriate Corporate Action code is generated to show the relationship between the newly *activated* instrument and the newly *inactivated* instrument. This message includes two Instrument blocks: one with a status of 2 (Old) and another with a status of 1 (New).

On deletes and modifies with status = 2, database lookups are not performed for certain fields. The specific series info (product symbol, CFI Code, expiration date, strike, and activation date) should be used as a key for lookup on the DDS system.

## Corporate Action Codes

Corporate Action Type	DDS (FIX Enumeration)
Cash Dividend	F
Stock Dividend	G
Non-Integer Stock Split	H
Reverse Stock Split	I
Standard-Integer Stock Split	J
Position Consolidation	K
Liquidation Reorganization	L
Merger Reorganization	M
Rights Offering	N
Shareholder Meeting	O
Spinoff	P
Tender Offer	Q
Warrant	R
Special Action	S
Symbol Conversion	T
CUSIP / Name	U
Position Consolidation Symbol Conversion	K T
Wrap	Not Applicable

In addition to the changes to corporate action code indicators, additional considerations must be defined for Corporate Actions processing. Due to the way that a Corporate Action is processed in the ENCORE system, a CA adjustment that requires a new instrument to be listed by the OCC would create the following FIXML message flow:

An example of the SecListUpd message flow resulting from a 2-for-1 Stock Split Corporate Action follows:

**(1) Modify message reflecting the new Inactivate Date for the Series that is to be split.**

```
<SecListUpd RptID="7038501" UpdActn="M" BizDt="2004-10-07">
  <SecL>
    <Instrmt Status="2" Sym="VLO" CFI="OPXXXX" MMY="20050122" MatDt="2005-01-22"
    StrkPx="15">
      <Evt EventTyp="5" Dt="2004-07-12"/>
    </Instrmt>
    <Instrmt Status="1" Sym="VLO" MMY="20050122" MatDt="2005-01-22" CFI="OPASPS"
    StrkPx="15">
      <Evt EventTyp="5" Dt="2004-07-12"/>
      <Evt EventTyp="6" Dt="2004-10-08"/>
    </Instrmt>
  </SecL>
</SecListUpd>
```

**(2) Add message reflecting the new Series (post-split).**

```
<SecListUpd RptID="7038502" UpdActn="A" BizDt="2004-10-07">
  <SecL>
    <Instrmt Status="1" Sym="VLO" MMY="20050122" MatDt="2005-01-22" CFI="OPASPS"
    StrkPx="7.5">
      <Evt EventTyp="5" Dt="2004-10-08"/>
    </Instrmt>
  </SecL>
</SecListUpd>
```

**(3) "Link" Modify message reflecting the Series being inactivated and the new series being added including a Corporate Action code used to communicate the type of corporate action that gave rise to the changes.**

```
<SecListUpd RptID="7001116" UpdActn="M" CorpActn="J" BizDt="2004-10-07">
  <SecL>
    <Instrmt Status="2" Sym="VLO" CFI="OPXXXX" MMY="20050122" MatDt="2005-01-22"
    StrkPx="15">
      <Evt EventTyp="5" Dt="2004-07-12"/>
      <Evt EventTyp="6" Dt="2004-10-08"/>
    </Instrmt>
    <Instrmt Status="1" Sym="VLO" MMY="20050122" MatDt="2005-01-22" CFI="OPASPS"
    StrkPx="7.5"/>
      <Evt EventTyp="5" Dt="2004-10-08"/>
    </Instrmt>
  </SecL>
</SecListUpd>
```



## **Uniqueness Checking**

The nature of real time messages creates the possibility of multiple messages per series update. Therefore, recipient systems must review the following fields and check for uniqueness against previously processed security update messages for the current processing day.

- RptID
- BizDt
- CorpActn (for Series/Contracts only)

---

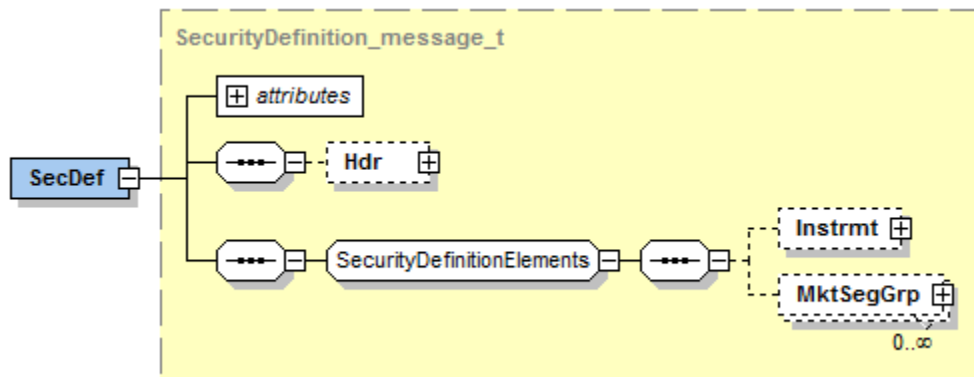
## Security Definition – Eligible Securities Report

FIX Message:	Security Definition
Subscription Options:	Equity
Delivery Options:	Batch File

### Overview

Eligible securities information is available on the Security Definition Report. The Eligible Securities file provides a list of all securities which are eligible for stock loan and/or collateral. The message includes the symbol and CUSIP for each security.

### Message Structure



### Message Layout – Security Definition – Eligible Securities Report

Security Definition –Eligible Securities Report							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	SecDef						
715				BizDt	Clearing Business Date	LocalMktDate	2010-06-08
964				RptID	Unique Identifier of the Eligible Security	String	421
	→	Instrmt					
55				Sym	Security Symbol Note: OCC removes dollar signs from security symbols that are received from IDSI.	String	AET
48				ID	CUSIP	String	00817Y108
22				Src	1 = CUSIP	String	1
460				Prod	Product Type 5 = Equity	Integer	5
	→	/Instrmt					
<i>The number of Market Segment Blocks depends on the number of programs each security is eligible for. One Market Segment block is included for each program.</i>							
	→	MktSegGrp					
1300				MktSegID	Identifies the market segment STOCKLOAN = Eligible for Stock Loan COLLATERAL = Eligible for Collateral	String	STOCKLOAN
	→	/MktSegGrp					
	/SecDef						

## Sample Message – Security Definition – Eligible Securities Report

```
<SecDef BizDt="2008-08-19" RptID="421">  
    <Instrmt Sym="AET" ID="00817Y108" Src="1" Prod="5"/>  
    <MktSegGrp MktSegID="STOCKLOAN"/>  
    <MktSegGrp MktSegID="COLLATERAL"/>  
</SecDef>
```

---

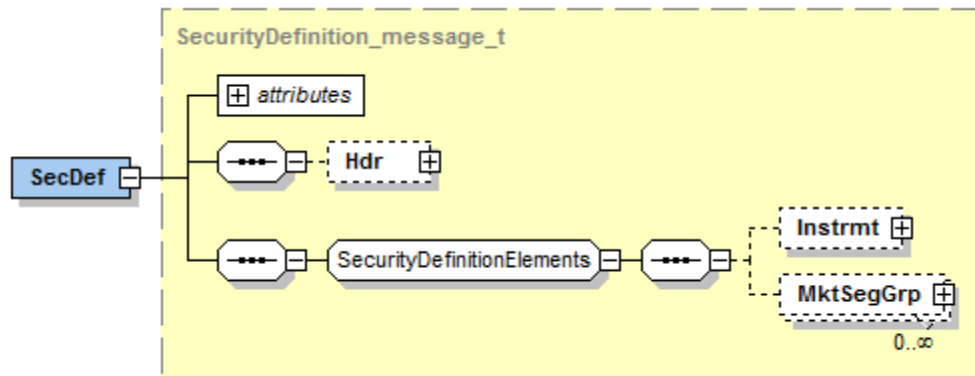
## Security Definition – Escrow Eligible Security Report

FIX Message:	Security Definition
Subscription Options:	Escrow
Delivery Options:	Batch File

### Overview

The Escrow Eligible Security file provides recipients with a list of eligible securities that can be pledged to OCC as supporting collateral for the Escrow Program.

### Message Structure



### Message Layout – Security Definition – Escrow Eligible Security Report

Security Definition – Escrow Eligible Security Report							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	SecDef						
715				BizDt	Clearing Business Date	LocalMktDate	2013-10-08
964				RptID	Unique Identifier of the Security Definition report	String	421
	→	Instrmt					
55				Sym	Security Symbol	String	AET
48				ID	CUSIP	String	00817Y108
22				Src	1 = CUSIP	String	1
460				Prod	Product Type 5 = Equity 6 = Debt	Integer	5
	→	/Instrmt					
<i>The number of Market Segment Blocks depends on the number of programs each security is eligible for. One Market Segment block is included for each program.</i>							
	→	MktSegGrp					
1300				MktSegID	Identifies the market segment ESCROW = Eligible for Collateral	String	ESCROW
	→	/ MktSegGrp					
	/SecDef						

## Sample Messages

### Sample Equity

```
<SecDef BizDt="2013-10-19" RptID="421">  
    <Instrmt Sym="AET" ID="00817Y108" Src="1" Prod="5"/>  
    <MktSegGrp MktSegID="ESCROW"/>  
</SecDef>
```

### Sample Debt

```
<SecDef BizDt="2013-10-19" RptID="53764">  
    <Instrmt ID="912834MK1" Src="1" Prod="6"/>  
    <MktSegGrp MktSegID="ESCROW"/>  
</SecDef>
```

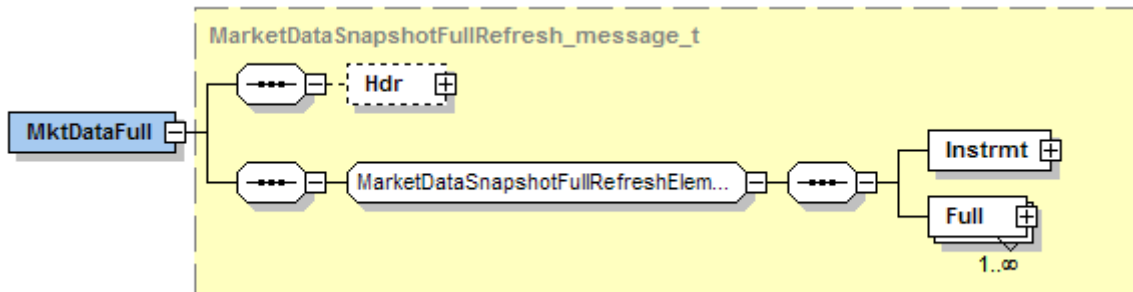
## Market Data Full – Open Interest

FIX Message:	Market Data Snapshot Full Refresh Report
Subscription Options:	Commodity Options
	Equity/Index Options
	Futures
Delivery Options:	Batch File

### Overview

Open Interest information is available on the Market Data Snapshot Full Refresh (Market Data Full) Report. For each active option series or futures contract, one message is created indicating the open interest quantity. If the contract or series has an open interest quantity of 0 (no positions), the process still creates an Open Interest message.

### Message Structure





### Message Layout – Market Data Full – Open Interest – Options

Market Data Snapshot Full Refresh – Open Interest – Options							
FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
963				RptID	Unique Identifier of the Open Interest Report	String	6142508
715				BizDt	Clearing Business Date	LocalMktDate	2004-10-07
	→	Instrmt					
55				Sym	Symbol	String	IBM
461				CFI	Default Values (refer to page 3)	String	OPASPS
200				MMY	Series/Contract Year, Month, Date	MonthYear	20050414 (4 for year, 2 for month, 2 for day)
541				MatDt	Expiration Date	LocalMktDate	2005-04-16
202				StrkPx	Strike Price (decimal format)	Price	110
947				StrkCcy	Strike Currency	Currency	USD
967				StrkMult	Strike Multiplier	Float	1
231				Mult	Market Trade Value	Float	100
968				StrkValu	Strike Value	Float	100
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (Open Interest = C)	Char	C
271				Sz	Market Data Entry Size	Qty	451
	→	/Full					
	/MktDataFull						

## Sample Message – Market Data Full – Open Interest – Daily Transmission – Options

```
<MktDataFull BizDt="2004-10-07" RptID="6142508">  
  <Instrmt Sym="IBM" CFI="OPASPS" StrkPx="110" StrkCcy="USD" StrkMult="1" Mult="100"  
  StrkValu="100" MMY="20050416" MatDt="2005-04-16"/>  
  <Full Typ="C" Sz="451"/>  
</MktDataFull>
```

### Message Layout – Market Data Full – Open Interest – Futures

Market Data Snapshot Full Refresh – Open Interest – Futures							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
963				RptID	Unique Identifier of the Open Interest Report	String	6137148
715				BizDt	Clearing Business Date	LocalMktDate	2004-10-07
	→	Instrmt					
55				Sym	Symbol	String	IBM1C
48				ID	Futures Symbol	String	IBM1C
22				Src	8 = Exchange Symbol	String	8
461				CFI	Default Values (refer to page 3)	String	FFSPSX
200				MMY	Series/Contract Year, Month, Date	MonthYear	20041015(4 for year, 2 for month, 2 for day)
541				MatDt	Expiration Date	LocalMktDate	2004-10-15
231				Mult	Market Trade Value	Float	100
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (Open Interest = C)	Char	C
271				Sz	Market Data Entry Size	Qty	46
	→	/Full					
	/MktDataFull						

## Sample Message – Market Data Full – Open Interest Daily Transmission – Futures

```
<MktDataFull BizDt="2004-10-07" RptID="6137148">  
  <Instrmt Sym="IBM1C" ID="IBM1C" Src="8" CFI="FFSPSX" Mult="100" MMY="20041015" MatDt="2004-  
  10-15"/>  
  <Full Typ="C" Sz="46"/>  
</MktDataFull>
```

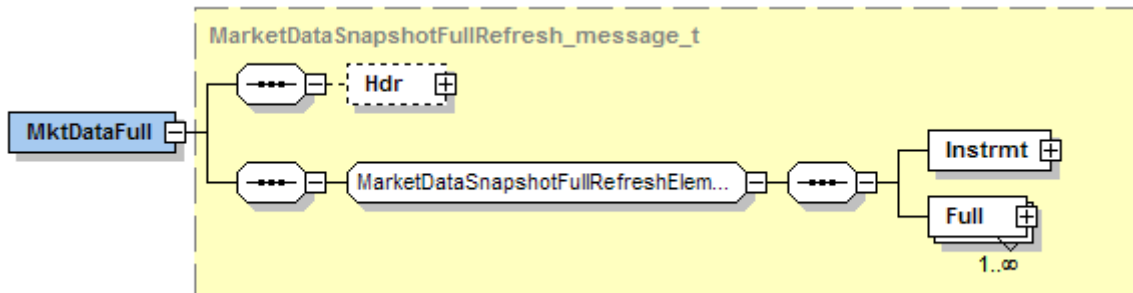
## Market Data Full – Prices

FIX Message:	Market Data Snapshot Full Refresh Report
Subscription Options:	Equity/Index Options
	Commodity Options
	OCC-Cleared Futures
Delivery Options:	Batch File

### Overview

Price information is available on the Market Data Snapshot Full Refresh (Market Data Full) Report. A price message is created for every active OCC Cleared Option Series in the database. In addition, a price message is created for every active OCC Cleared Future contract in the database. Prices Reports include FLEX options for their respective product, series, or contract set.

### Message Structure



## Message Layout – Market Data Full – Prices – Options

Market Data Snapshot Full Refresh – Prices – Options							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
963				RptID	Unique Identifier of the Prices Report	String	6009551
715				BizDt	Clearing Business Date	LocalMktDate	2005-01-21
	→	Instrmt					
55				Sym	Symbol	String	SPX
461				CFI	Default Values (refer to page 3)	String	OCASPS
200				MMY	Series/Contract Year, Month, Date	MonthYear	20050122 (4 for year, 2 for month, 2 for day)
541				MatDt	Expiration Date	LocalMktDate	2005-01-22
202				StrkPx	Strike Price (decimal format)	Price	105
947				StrkCcy	Strike Currency	Currency	USD
967				StrkMult	Strike Multiplier	Float	1
231				Mult	Market Trade Value	Float	100
968				StrkValu	Strike Value	Float	100
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (5=Close Price)	Char	5
270				Px	Market Data Entry Price (Mark Price)	Price	0.104192
15				Ccy	Identifies currency used for price	Currency	USD
811				PxDelta	Price Delta	Float	0.96
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
	→	Full					
269				Typ	Market Data Entry Type (D=Composite Underlying Price)	Char	D

OCC – Last Updated February 2024

Market Data Snapshot Full Refresh – Prices – Options							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
270				Px	Market Data Entry Price (Underlying Composite Close Price)	Price	87.420000
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
<i>A third full component block is present for settle on open series when the current business date equals the expiration date. For options that are grandfathered with a Saturday expiration date, this component block is present when the next business date equals the expiration date.</i>							
	→	Full					
269				Typ	Market Data Entry Type (4=Open Price)	Char	4
270				Px	Market Data Entry Price (Underlying Composite Open Price)	Price	87.150000
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
		/MktDataFull					

## Sample Message – Market Data Full – Prices – Equity/Index Options

The following sample message shows the price information for SPX January 2005 call options with a strike of 105.

```
<MktDataFull BizDt="2005-01-21" RptID="6009551">  
  <Instrmt Sym="SPX" MMY="20050122" MatDt="2005-01-22" CFI="OCASPS" StrkPx="105" StrkMult="1"  
  StrkValu="100" Mult="100" StrkCcy="USD"/>  
  <Full Typ="5" Px="0.104192" Ccy="USD" PxDelta="0.96" Dt="2005-01-21"/>  
  <Full Typ="D" Px="87.42" Dt="2005-01-21"/>  
  <Full Typ="4" Px="87.15" Dt="2005-01-21"/>  
</MktDataFull>
```



## Message Layout – Market Data Full – Prices – Futures

Market Data Snapshot Full Refresh – Prices – Futures							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
963				RptID	Unique Identifier of the Prices Report	String	6091826
715				BizDt	Business Date	LocalMktDate	2005-01-21
	→	Instrmt					
55				Sym	Symbol	String	IBM1C
48				ID	Futures Symbol	String	IBM1C
22				Src	8 = Exchange Symbol	String	8
461				CFI	Default Values (refer to page 3)	String	FFSPSX
200				MMY	Series/Contract Year, Month, Date	MonthYear	20050318 (4 for year, 2 for month, 2 for day)
541				MatDt	Expiration Date	LocalMktDate	2005-03-18
231				Mult	Market Trade Value	Float	100
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (6=Settlement Price)	Char	6
270				Px	Market Data Entry Price (Settlement Price) (Could be negative for futures only)	Price	22.52
15				Ccy	Identifies currency used for price	Currency	USD
811				PxDelta	Price Delta	Float	1
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
	→	Full					
269				Typ	Market Data Entry Type (S= Swap Value Factor)	Char	S
270				Px	Market Data Entry Price (Swap Point Value)	Price	0.22

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Market Data Snapshot Full Refresh – Prices – Futures							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
15				Ccy	Identifies currency used for price	Currency	USD
272				Dt	Market Data Entry Date	UTCDateOnly	2012-10-02
	→	/Full					
	/MktDataFull						

## Sample Messages – Market Data Full – Prices – Futures

```
<MktDataFull BizDt="2005-01-21" RptID="6091826">  
    <Instrmt Sym="IBM1C" ID="IBM1C" Src="8" MatDt="2005-03-18" CFI="FFSPSX" Mult="100"  
    MMY="20050318"/>  
    <Full Typ="6" Px="22.52" Ccy="USD" PxDelta="1" Dt="2005-01-21"/>  
</MktDataFull>
```

## Sample Message for products with Swap Point Amount

```
<MktDataFull BizDt="2012-07-02" RptID="6091826">  
    <Instrmt Sym="NAU" ID="NAU" Src="8" MatDt="2012-12-26" CFI="FFSPSX" Mult="100"  
    MMY="20121226"/>  
    <Full Typ="6" Px="1597.1" Ccy="USD" PxDelta="1" Dt="2012-07-02"/>  
    <Full Typ="S" Px=".022" Ccy="USD" Dt="2012-07-02"/>  
</MktDataFull>
```

## Implementation Considerations

### General

All Option Price Reports include flex options for their respective product set. For example, the Equity/Index Option Prices transmissions include prices for both standard and flex equity/index options.

### The Full Block

The <Full> block for Options and Futures Price records breaks down as follows:

Options

Instance #1 – Current mark price (calculated price of the option).

Instance #2 – Current settlement price (calculated price of the underlying component).

Optional

Instance #3 – Current open settlement price (for settle on open option series only).

**Note:** For Binary Series, the VWAP price is displayed when Market Data Type = 4 (Typ = “4”).

This block is present for settle on open series under the following conditions:

- Flex Series or Special Dated Options → Current Business Date = Expiration Date
- Standard Series or Binary Series → Next Business Date = Expiration Date

---

## Market Data Full – Early Composite Underlying Prices

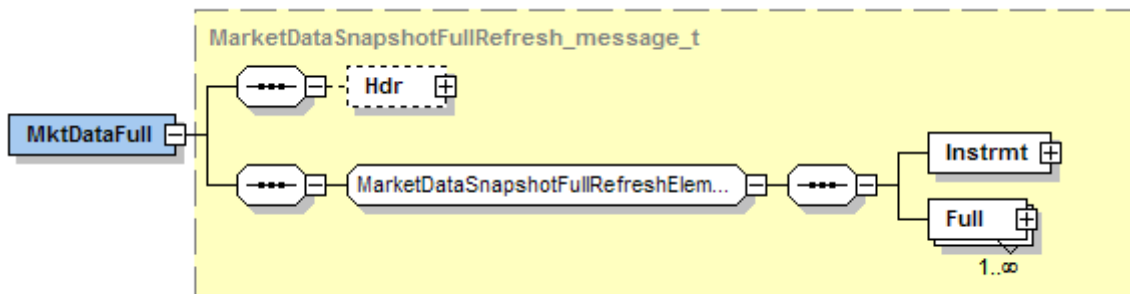
FIX Message:	Market Data Snapshot Full Refresh Report
Subscription Options:	Underlying Composite Equity Option
Delivery Options:	Batch File

### Overview

Early Composite Underlying Price information is available on the Market Data Snapshot Full Refresh (Market Data Full) Report. These prices are extracted from the price vendors at a given time and written unedited into this report. These are not finalized prices.

One price message is created for each equity option. This message is available on a daily basis.

### Message Structure



## Message Layout – Market Data Full – Early Composite Underlying Prices

Market Data Snapshot Full Refresh – Early Composite Underlying Prices							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
715				BizDt	Clearing Business Date	LocalMktDate	2006-07-21
	→	Instrmt					
55				Sym	Symbol	String	IBM
461				CFI	OXASPS	String	OXASPS
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (P=Early Prices)	Char	P
270				Px	Unedited composite price	Price	81.98
15				Ccy	Identifies currency used for price	Currency	USD
	→	/Full					
	/MktDataFull						

## Sample Message – Market Data Full – Early Composite Underlying Prices

```
<MktDataFull BizDt="2006-07-21">
  <Instrmt Sym="IBM" CFI="OXASPS"/>
  <Full Typ="P" Px="81.98" Ccy="USD"/>
</MktDataFull>
```

## Market Data Full – Final Composite Underlying Prices

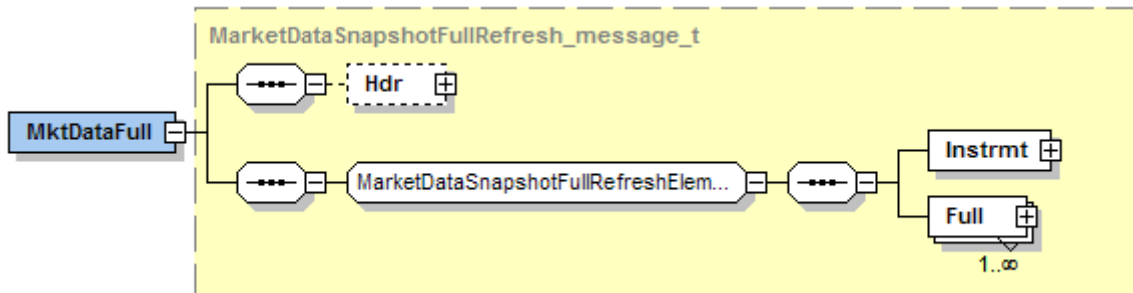
FIX Message:	Market Data Snapshot Full Refresh Report
Subscription Options:	Equity Options
	Index Options
Delivery Options:	Batch File

### Overview

Finalized composite underlying price information is available on the Market Data Snapshot Full Refresh (Market Data Full) Report. A price message is created for every active OCC Cleared Option Series in the database. These prices are final published option composite prices.

One price message is created for each equity option and index option. This message is available on a daily basis.

### Message Structure



### Message Layout – Market Data Full – Final Composite Underlying Prices

Market Data Snapshot Full Refresh – Final Composite Underlying Prices							
FIX Mapping					Data	Data Type	Sample Data
Tag #	Report Block	Component Block	Sub Component Block	Fields			
	MktDataFull						
963				RptID	Unique Identifier of the Prices Report	String	6009551
715				BizDt	Clearing Business Date	LocalMktDate	2006-07-21
	→	Instrmt					
55				Sym	Symbol	String	IBM
461				CFI	Equity = EXXXXX Index = MRXXXX	String	EXXXXX
541				MatDt	Expiration Date (Only displayed for Underlying Composites with Expiring Contracts)	LocalMktDate	2006-07-21
	→	/Instrmt					
	→	Full					
269				Typ	Market Data Entry Type (D=Underlying Composite Price)	Char	D
270				Px	Final Edited Closing Price	Price	81.98
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
	→	Full					
269				Typ	Market Data Entry Type (4=Open Price)	Char	4
270				Px	Market Data Entry Price (Underlying Composite Open Price)	Price	87.150000
272				Dt	Market Data Entry Date	UTCDateOnly	2005-01-21
	→	/Full					
	/MktDataFull						



### Sample Message – Market Data Full – Equity Options

```
<MktDataFull RptID="18220534" BizDt="2014-07-07">  
  <Instrmt Sym="TJX" CFI="OXASPS"/>  
  <Full Typ="D" Px="53.41" Dt="2014-07-07"/>  
</MktDataFull>
```

### Sample Message – Market Data Full – Index Options

```
<MktDataFull RptID="18221674" BizDt="2014-07-18">  
  <Instrmt Sym="BSZ" CFI="OXEICN"/>  
  <Full Typ="D" Px="1956.98" Dt="2014-07-18"/>  
</MktDataFull>
```

## Implementation Considerations

### General

All Option Final Underlying Composite Price Reports include flex options for their respective product set. For example, the Equity and Index Option Composite Price transmissions include prices for both standard and flex equity/index options.

### The Full Block

The <Full> block for Option Composite Price records breaks down as follows:

Instance #1 – Finalized, edited, published option composite price

Optional

Instance #2 – Maturity Date (MatDt) only displays for underlying composites with expiring contracts.

Instance #3 – Finalized, edited, published, settle on open price. (Settle on open price is provided for options which are expiring today.)

**Note:** For Binary Series, the VWAP price is displayed when Market Data Type = 4 (Typ = “4”).

This block is present for Settle on Open Series under the following conditions:

- Flex Series or Special Dated Options → Current Business Date = Expiration Date
- Standard Series or Binary Series → Next Business Date = Expiration Date

---

## Appendix A

### Product Multipliers in DDS

#### Strike Multiplier (tag name StrkMult)

The strike multiplier is a number that identifies where the decimal for a strike price should be. For example, for a strike of \$1,000, a multiplier of 0.1 indicates that the strike is \$100.

The Strike Multiplier is always 1.0 for Equity Options, is usually 1.0 for Index Options, but is 0.1 for “half-point” Index Options.

#### Strike Value (tag name StrkValu)

The Strike Value is a number that the user defines for 1 unit of strike value.

For example, if the strike value = 100, then a strike of \$17 equals \$1,700. This field is used for calculating extended strike values.

The number of units represented by the Strike Value is comprised of:

- 1) Number of shares for Equity Options
- 2) A dollar amount for Index Options

The typical value of this multiplier for Equity and Index options is 100.

The Strike Value in DDS accounts for products with multiple delivery components.

#### Trade Value (tag name Mult)

The Trade Value is a number that the user defines for 1 unit of trade premium value.

For example, if the trade value = 100, then a premium of \$1.50 equals \$150. This field is used for calculating premium money extensions.

The number of units represented by the Trade Value is comprised of:

- 1) Number of shares for Equity Options
- 2) A dollar amount for Index Options

The typical value of this multiplier for Equity and Index options is 100. In the majority of cases, the Trade Premium has to be extended to the same base as the Strike Price. Therefore, the Trade Value is usually the same as the Strike Value.

## Product Multipliers in Extended Value Calculations

### Extended Strike Calculation

DDS method of calculating extended strike:

extended strike price = strike price \* strike multiplier \* strike value

### Extended Trade Premium Calculation

DDS method of calculating extended premium:

extended trade premium per contract = trade premium \* trade value \* no. of contracts

## Product Examples

### Standard Equity Option

Symbol = **IBM**

Strike Price = \$75

Trade Premium = \$3.25

No. of contracts = 25

#### **DDS:**

Strike Multiplier (StrkMult) = 1.0

Strike Value (StrkValu) = 100

Trade Value (Mult) = 100

Extended Strike Price (DDS) =

strike price \* strike multiplier \* strike value =  $\$75 * 1.0 * 100 = \mathbf{\$7,500}$

Extended Trade Premium (DDS) =

trade premium \* trade value \* no. of contracts =  $\$3.25 * 100 * 25 = \mathbf{\$8,125}$

### Equity Option After a 3-for-2 Stock Split

Symbol = **YIW**

Strike Price = \$35

Trade Premium = \$2.75

No. of contracts = 25

#### **DDS:**

Strike Multiplier (StrkMult) = 1.0

Strike Value (StrkValu) = 150

Trade Value (Mult) = 150

Extended Strike Price (DDS) =

strike price \* strike multiplier \* strike value =  $\$35 * 1.0 * 150 = \mathbf{\$5,250}$

Extended Trade Premium (DDS) =

trade premium \* trade value \* no. of contracts =  $\$2.75 * 150 * 25 = \mathbf{\$10,312.50}$

### Standard Index Option

Symbol = **DJX**

Strike Price = \$76

Trade Premium = \$1.50

No. of contracts = 25

#### **DDS:**

Strike Multiplier (StrkMult) = 1.0

Strike Value (StrkValu) = 100

Trade Value (Mult) = 100

Extended Strike Price (DDS) =

strike price \* strike multiplier \* strike value =  $\$76 * 1.0 * 100 = \mathbf{\$7,600}$

Extended Trade Premium (DDS) =

trade premium \* trade value \* no. of contracts =  $\$1.50 * 100 * 25 = \mathbf{\$3,750}$

### Mini Index Option

Symbol = **QCE**

Strike Price = \$125

Trade Premium = \$1.50

No. of contracts = 25

#### **DDS:**

Strike Multiplier (StrkMult) = 1.0

Strike Value (StrkValu) = 10

Trade Value (Mult) = 10

Extended Strike Price (DDS) =

strike price \* strike multiplier \* strike value =  $\$125 * 1.0 * 10 = \mathbf{\$1,250}$

Extended Trade Premium (DDS) =

trade premium \* trade value \* no. of contracts =  $\$1.50 * 10 * 25 = \mathbf{\$375}$

## Appendix B

### Revision History

Version	Date	Version Updates
3.6	9/6/2013	<ul style="list-style-type: none"> <li>Updated Security List – Option Series layout and sample message to add Evnt block for closing only designation.</li> <li>Updated Security List Update – Option Series to modify layout and sample message to add Evnt block for closing only designation.</li> <li>Added Appendix B - Revision History</li> </ul>
3.7	2/7/2014	<ul style="list-style-type: none"> <li>Updated the Eligible Securities Report layout Sym block to indicate that OCC removes dollar signs from security symbols that are received from IDSI.</li> <li>Updated the Eligible Securities Report layout MktSegGrp block to appear as a component rather than as a subcomponent.</li> </ul>
3.8	6/30/2014	<ul style="list-style-type: none"> <li>Updated cover page logo.</li> <li>Removed references to NYL.</li> </ul>
3.9	8/26/2014	Added Final Composite Underlying Prices transmissions for Equity Options and Index Options.
3.10	9/2/2015	<ul style="list-style-type: none"> <li>Adjusted note for third full component blocks in the Market Data Full – Prices – Options layout.</li> <li>Added EDGX Options exchange.</li> </ul>
3.11	11/19/2015	<ul style="list-style-type: none"> <li>Corrected Message Structure, Message Layout and Sample Message for Security Definition – Eligible Securities Report</li> <li>Added section for Escrow Program Eligible Security Report for Escrow Program Changes project.</li> </ul>
3.12	12/15/2015	<ul style="list-style-type: none"> <li>Added ISE Mercury exchange.</li> <li>Corrected two typos (Debit should be Debt)</li> </ul>
3.13	12/6/2016	<ul style="list-style-type: none"> <li>Added MPRL exchange.</li> </ul>
3.14	06/15/2017	<ul style="list-style-type: none"> <li>Replaced all sample messages containing SettTyp="4" with SettTyp="3"</li> </ul>
3.15	9/18/2017	Updated the Market Data Full – Prices – Futures layout table for potentially negative futures prices.
3.16	8/24/2018	<ul style="list-style-type: none"> <li>Applied rebranding updates.</li> <li>Removed ELX exchange.</li> </ul>
3.17	11/12/2018	Added EMLD exchange.
3.18	12/17/2018	Added details for new file Security List – Trade Source Series File.
3.19	1/28/2019	Added details for Security List – Trade Source Series File delisted series.
3.20	8/30/2019	Added SML exchange.
3.21	12/31/2019	Updated the description of MMY to “Series/Contract Year, Month, Date”.
3.22	6/28/2020	Removed NFX exchange.
3.23	9/23/2020	Removed ONE exchange.
4.0	9/30/2021	<ul style="list-style-type: none"> <li>Reordered the content within the document to improve usability.</li> <li>Added minor updates for clarity.</li> </ul>
4.1	6/1/2023	<ul style="list-style-type: none"> <li>Added MEMX exchange.</li> <li>Removed unused Ccy – Currency (15) tag from Security Definition Update – Option Product – Delete layout table.</li> <li>Added missing PosLmt (970) tag to Security Definition – Futures layout table.</li> <li>Added minor updates for clarity.</li> </ul>
4.2	2/1/2024	<ul style="list-style-type: none"> <li>Added MIAX Sapphire exchange.</li> <li>FIXML tag number correction in Security Definition Update – Option Product – Modify table.</li> </ul>