



Technical Notice

08-007

TO: BOX Participants and ISVs
FROM: Participant Connectivity Coordinator
SUBJECT: **BOX Options Symbology Initiative Update**
DATE: February 27, 2008

The Options Clearing Corporation (OCC) launched the Options Symbology Initiative (OSI) to simplify the symbology of exchange-listed index and equity options and support long-term growth in the Options Industry. OSI is a multi-phased program ending in the fourth quarter of 2009. The first phase launches on June 28, 2008, when the Options Exchanges, as well as the OCC, begin receiving and sending OSI compliant messages in addition to the current production messages. To meet the June launch, BOX, an active participant in OSI, will be making several messaging changes.

Impact

The following BOX services will be impacted by the OSI changes:

Service	Impact
FIX	The FIX interface will use the field tag 205 to indicate the maturity day.
HSVF	The 'Instrument Description', used in many HSVF messages, will contain new or modified fields.
HSVF NBBO	The Option Quote message will contain new or modified fields.
ATR	Several fields will be expanded. The Strike Price format will also be aligned with the OSI format.
TMS	A version supporting OSI will be released.
SAIL	No impact. SAIL is an ID driven protocol and already compliant with OSI.

Timeline

May 19, 2008 BOX testing environment will support the new OSI formats. Participants and ISVs are asked to test their applications beginning in May.

June 30, 2008 In production, BOX will start receiving and sending both the existing and the new OSI message formats. Both old and new message formats will be supported.

January 1, 2009 BOX will decommissioned the old formats and only the OSI formats will be supported. Decommissioning may be accelerated based on Participant readiness

July 31, 2009 Industry wide, mandatory use of the OSI messaging format.

August 2009 Consolidation of symbols begins.

Technical Details - FIX

A new field will be added to specify the maturity day of instrument. The MaturityDay field is mandatory for the new OSI and optional for the old format. This field #205 will be defined as follows:

Field #	Field Name	Description	Field Length
205	MaturityDay	Can be used in conjunction with MaturityMonthYear to specify a particular maturity date (expiration date).	1 to 2

This new field will be present in the following message types:

- New Order – Single (MsgTyp 35 = D)
- Order Cancel/Replace Request (MsgTyp 35 = G)
- PIP Initial Order (MsgTyp 35 = PI)
- Order Cancel Request (MsgTyp 35 = F)
- Quote Request (MsgTyp 35 = R)
- Execution Report (MsgTyp 35 = 8)
- Security Definition (MsgTyp 35 = d)

Technical Details - HSVF

Several HSVF message types are impacted.

HSVF Instrument Description – 20 bytes

The 'Instrument Description' data group will be modified as follow:

Field Name	L	T	Definition / Validation Rules
Symbol Root	6	A	Field length expanded from 5 to 6 bytes. Symbol for the Option series
Month Code	1	A	No change
Strike Price Code	1	A	No change
Strike Price	7	N	No change
Strike Price Fraction Indicator	1	X	No change
Expiry Year	2	N	Field length expanded from 1 to 2 bytes. Last 2 digits of the option expiry year
Expiry Day	2	N	Field added. Delivery day for the contract

HSVF Message Type J – Option Instrument key – 119 bytes

This message type will be modified as follow:

Field Name	L	T	Definition / Validation Rules
Message Header	11	X	No change
Exchange ID	1	A	No change
Instrument Description	20	X	Field length expanded from 16 to 20 bytes. Refer to Instrument Description.
Strike Price Currency	3	X	No change
Expiry Day	2		Field moved in the 'Instrument Description' data group
Filler	6		Field removed
Max number of contracts per order	6	X	No change
Min number of contracts per order	6	X	No change
Max Threshold Price	6	X	No change
Max Threshold Price Fraction Indicator	1	X	No change
Min Threshold Price	6	X	No change
Min Threshold Price Fraction Indicator	1	X	No change
Tick Increment	6	X	No change
Tick Increment Fraction indicator	1	N	No change
Option type	1	X	No change
ISIN	12		Field removed
Market Flow Indicator	2	X	No change
Group	2	X	No change
Instrument	4	X	Field added to replace the 'ISIN' field.
Instrument external code	30	X	Field length expanded from 20 to 30 bytes. External identifier used by traders when entering an order
Option marker	2	A	No change
Underlying Symbol	10	A	No change

HSVF Messages Types A, C, D, F, H, I, M, N, O and T

In these message types, the field "Instrument Description" is expanded from 16 to 20 characters. The rest of the fields remain unchanged.

Field Name	L	T	Definition / Validation Rules
Instrument Description	20	X	Refer to Instrument Description

HSVF Message Types GC and GR

The field "Symbol Root" will be expanded from 5 to 6 bytes.

The content of this field is the option symbol, not the underlying

HSVF Message Type RS

The field "Option classes requested" will be expanded up to 5994 bytes.

HSVF Message Types L, Q, S, U, V and W

These HSVF messages are not impacted.

Technical Details – HSVF NBBO

The Option Quote and Connection message types are impacted.

HSVF NBBO Message Type F – Option Quote – 57 bytes

This message will use a new format as described in the following table:

Field Name	L	T	Definition / Validation Rules
Message Header	10	X	No change
Exchange I.D.	1	A	No change
Symbol Root	6	A	Field length expanded from 5 to 6 bytes. Option symbol
Expiry Month	1	A	No change
Strike Price Code	1	A	No change
Strike Price	7	N	No change
Strike Price Fraction Indicator	1	X	No change
Expiry Year	2	N	Field length expanded from 1 to 2 bytes. Two last digits of the option expiry year
Expiry Day	2	N	Field added. Option expiry day
Bid Price	6	X	No change
Bid Price Fraction Indicator	1	X	No change
Bid Size	5	X	No change
Ask Price	6	X	No change
Ask Price Fraction Indicator	1	X	No change
Ask Size	5	X	No change
NBBO Best Bid Origin	1	A	No change
NBBO Best Ask Origin	1	A	No change

HSVF NBBO Message Type RS – Connection message – Up to 6023 bytes

The field "Option classes requested" will be enlarged up to 5994 bytes.

Technical Details - ATR

A new message format will be used for the following message types:

- Message Type 30 – Trade
- Message Type 31 – Trade Cancel
- Message Type 35 – As Of Trade
- Message Type 36 – As Of Trade Cancellation
- Message Type 40 – Allocation
- Message Type 41 – Allocation Cancel
- Message Type 45 – As Of Trade Allocation
- Message Type 46 – As Of Trade Allocation Cancel

Length 120 bytes

Field Name	L	T	Definition / Validation Rules
Message header	22		No change
Trade Number	6	N	No change
Transaction Type	1	A	No change
Stamp Time	6	A	No change
Symbol	30	A	Field length expanded from 20 to 30 characters. Instrument symbol
Expiration Date	6	A	Field length expanded from 4 to 6 character, addition of DD part. Expiration date of the instrument. Format is YYMMDD
Strike Price	8	N	Field modified from a fix to a variable number of decimal. Option strike price. The format is defined by the new field "Strike Price Fraction Indicator".
Strike Price Fraction Indicator	1	X	New field added. Define the number of decimal places or fraction positions. The default will be 4 to be identical to the existing format.
Option Type	1	A	No change
Volume	8	N	No change
Price (x 10000)	8	N	No change
CMTA Broker	3	N	No change
Account Type	1	A	No change
Sub-trader ID	3	A	No change
Open Close	1	A	No change
Executing Broker	3	N	No change
Client Account Number	12	A	No change

Contacts

Please contact the Technical Help Desk at 1-866-905-3535 or by e-mail at boxsupport@bostonoptions.com if you require assistance or any additional information on this Technical Notice.

Thank you,

BOX Participant Connectivity Coordinator